

VSP 729



User Manual

- Manual #: RGB-RD-UM-V729 E001
- Revision: V1.2



VSP 729·User Manual

Thank you for choosing our products!

In order to allow you to learn how to use the video processor quickly, we bring you the detailed user's guide. You can read the introduction and directions before using the video processor, please read all the information we provide carefully to use our products correctly.

Copyright

©2012 All rights reserved by RGBLINK.

This document is done by Xiamen RGBlink Science & Technolog Co.,Ltd independently. No part may be copied, reproduced or translated without permission.

Notice

RGBlink provides this manual "as is" without warranty of any kind, either expressed or implied, including but not limited to the implied warranties or merchantability and fitness for a particular purpose. RGBlink may make improvements and/or changes to the product(s) and/or the program(s) described in this publication at any time without notice.

This publication could contain technical inaccuracies or typographical errors. Changes are periodically made to the information in this publication; these changes are incorporated in new editions of this publication.

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be responsible for correcting any interference.

Guarantee and Compensation

RGBlink provides a guarantee relating to perfect manufacturing as part of the legally stipulated terms of guarantee. On receipt, the purchaser must immediately inspect all delivered goods for damage incurred during transport, as well as for material and manufacturing faults. RGBlink must be informed immediately in writing of any complaints.

The period of guarantee begins on the date of transfer of risks, in the case of special systems and software on the date of commissioning, at latest 30 days after the transfer of risks. In the event of justified notice of compliant, RGBlink can repair the fault or provide a replacement at its own discretion within an appropriate period. If this measure proves to be impossible or unsuccessful, the purchaser can demand a reduction in the purchase price or cancellation of the contract. All other claims, in particular those relating to compensation for direct or indirect damage, and also damage attributed to the operation of software as well as to other service provided by RGBlink, being a component of the system or independent service, will be deemed invalid provided the damage is not proven to be attributed to the absence of properties guaranteed in writing or due to the intent or gross negligence or part of RGBlink.

If the purchaser or a third party carries out modifications or repairs on goods delivered by RGBlink, or if the goods are handled incorrectly, in particular if the systems are commissioned operated incorrectly or if, after the transfer of risks, the goods are subject to influences not agreed upon in the contract, all guarantee claims of the purchaser will be rendered invalid. Not included in the guarantee coverage are system failures which are attributed to programs or special electronic circuitry provided by the purchaser, e.g. interfaces. Normal wear as well as normal maintenance are not subject to the guarantee provided by RGBlink either.

The environmental conditions as well as the servicing and maintenance regulations specified in this manual must be complied with by the customer.

Trademarks

Brand and product names mentioned in this manual may be trademarks, registered trademarks or copyrights of their respective holders. All brand and product names mentioned in this manual serve as comments or examples and are not to be understood as advertising for the products or their manufacturers.

Company address



RGBlink Science & Technology Co., Ltd.

Headquarter: S603~604 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Fujian Province, P.R.C

Shenzhen office: Floor 11, A1 Building, Baiwang R&D Building, Shahe West Road, Xili Town, Nanshan District, Shenzhen, Guangdong Province, P.R.C

Beijing office: Room 410, Building 3, Dongyi International Business Park, No.8 Gaojing Culture Garden, Chaoyang District, Beijing, P.R.C

Shanghai office: Building 3, 1358 Nong, Tongpu Road, Shanghai, P.R.C

- **Tel:** +86-592-5771197
- **Fax:** +86-592-5771202
- **Websites:**
 - ~ <http://www.rgbblink.com>
 - ~ <http://www.rgbblink.cn>
- **E-mail:** rgbblinkcs@gmail.com

Operators Safety Summary

The general safety information in this summary is for operating personnel.

Do Not Remove Covers or Panels

There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

Power Source

This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.

Grounding the Product

This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective-ground connection by way of the grounding conductor in the power cord is essential for safe operation.

Use the Proper Power Cord

Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

Use the Proper Fuse

To avoid fire hazard, use only the fuse having identical type, voltage rating, and current rating characteristics. Refer fuse replacement to qualified service personnel.

Do Not Operate in Explosive Atmospheres

To avoid explosion, do not operate this product in an explosive atmosphere.

Terms In This Manual and Equipment Marking



WARNING

Highlights an operating procedure, practice, condition, statement, etc, which, if not strictly observed, could result in injury or death of personnel.

Note

Highlights an essential operating procedure, condition or statement.



CAUTION

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Change History

The table below lists the changes to the Video Processor User Manual.

Format	Time	ECO#	Description	Principal
V1.0	2011-12-08	0000#	Release	BIN
V1.1	2012-02-20	0001#	version upgrade	BIN
V1.2	2012-06-20	0002#	Renew address of Shenzhen office Add address of Beijing office and Shanghai office Renew format of specification	BIN



CONTENT

CONTENT	8
1. Introduction	15
Chapter Structure	16
How to Use This Guide	17
Terms and Definitions.....	18
System Overview	23
Application Questions.....	24
2. Hardware Orientation	25
In This Chapter	25
VSP 729 Rear Panel.....	26
INPUT Interface.....	26
1~4 9~11:CVBS Input	26
13.15.22.24:HDMI Input Interface.....	27
14.16.23.25:VGA Input Interface	27
17.21:USB Input Interface	27
19: Background Input Interface.....	27
OUTPUT Interface	28
18:Preview Output Interface	28
20:Program Output Interface	28
CONTROL.....	28
5.Dial Switch	28
6.10/100M Interface.....	28
7.USB Interface	28
8.RS232 Interface.....	28
Switch and power	29

26.Power.....	29
27.Switch Interface	29
VSP 729 Front Panel.....	30
PROGRAM	30
PREVIEW	30
CUSTOM.....	30
TRANSITION	31
EFFECTS	31
SAVE CONFIG	31
Keyboard	31
LCD Module	31
Knob Switch	31
VSP 729 Front Panel Keyboard Operation	32
PROGRAM	34
PREVIEW	34
CUSTOM.....	35
TRANSITION	37
EFFECTS	37
SAVE CONFIG	38
KER BOARD	39
Knob switch.....	39
3. Hardware Installation.....	40
In This Chapter	40

Safety Precautions.....	41
Unpacking and Inspection	41
Site Preparation.....	41
4. Menu Orientation	42
In This Chapter	42
PROG.....	43
WIPE.....	44
OUT	46
SCALE	47
MENU.....	48
MENU--Dev Info.....	49
MENU--Reset	49
MENU--Matrix	49
MENU--TP	49
MENU--AB Mode	49
MENU--Crop	50
MENU--Picture.....	50
MENU-- BG	51
MENU-- Scale.....	51
MENU-- Advance	52
MENU-- Time	53
MENU-- Calendar.....	53

MENU--- Language.....	53
MENU--- OUT	53
5. Communication Software Guideline	55
In This Chapter	55
Install Software.....	56
Run software	59
Set Up Communication.....	59
Input setting.....	63
Input source choice	63
Input resolution	63
Display Mode	63
Ration.....	64
Image	64
Background	64
TP	65
Mode configuration	65
Image input.....	65
Layer.....	66
Screen Param	66
Set	67
Save	67
Update reset	67

Mode control	67
Preview	68
Program	68
Output resolution toolbar	69
Current config mode.....	69
Switch mode	69
Call saving modes	70
Switch output mode	70
CUT.....	71
Take	71
Effects Toolbar	71
Fade duration.....	72
Switch effect speed.....	72
Width of transparent toolbar	72
Control	72
Upgrade	72
DVI DE Delay	73
VGA Input Adjust	73
IP setting.....	74
Factory reset.....	74
Option	74
Language	74
Administration	75
Advance Setting.....	75
Help.....	75
Version notice.....	75
About.....	75

Information toolbar	75
How to control processor through RS232?	76
How to control processor with console software by USB?	79
6. System Setup and Operations.....	83
In This Chapter	83
Interface and Input Signal Option	84
The selection of signal format	85
Single Image Switching	86
Button Save User Mode Operations.....	86
Single Image Switch	86
Size and Position setting	86
Background choice	88
Multiview image setting	89
Size and position setting	89
Multiview image switching	90
Multiview Matrix Function	91
7. Common Questions and Solution	92
In This Chapter	92
No Output in Large Screen.....	93
Confirm if there are any input singles	93
Confirm if single output.....	93
Large Screen Output Flash Point.....	93

Confirm if monitor output is normal	93
Large Screen only Display Part of the Image	94
Signal need to scale	94
No Display in the Second Half Part of Large Screen	94
Resolution is inadequate	94
Sending card can't take lower part	94
Large Screen Shaking	94
Sending card input recognition is not correct	94
Left of the Screen Appears Two Black Sides	95
Adjust DE dethroughtion	95
All Key Lights Light Simultaneously	95
Check if dial switches are normal	95
A.Specification	96
B. Contact Information	98
C. Upgrading Software	99
VSP 729 upgrade firmware	99
Download the IP software	101

1. Introduction

This chapter is designed to introduce you to the VSP 729 User Manual. Areas to be covered are:

- [Chapter Structure](#)
- [How to Use This Guide](#)
- [Terms and Definitions](#)
- [System Overview](#)
- [Application Questions](#)

1. Introduction

Chapter Structure

Chapter Structure

The following chapters provide instructions for all aspects of VSP 729 operations.

- [Chapter 1 Introduction](#)
- [Chapter 2 Hardware Orientation](#)
- [Chapter 3 Hardware Installation](#)
- [Chapter 4 Menu Orientation](#)
- [Chapter 5 Communication Software Guidelines](#)
- [Chapter 6 System Setup and Operations](#)
- [Chapter 7 Common Questions and Solution](#)
- [Appendix A Specification](#)
- [Appendix B Contact information](#)
- [Appendix C Upgrading Software](#)

1. Introduction

How to Use This Guide

How to Use This Guide

Following are important tips for streamlining your use of this User Manual in its electronic “PDF” form.

Navigating

Use Acrobat Reader’s “bookmarks” to navigate to the desired location.

All chapter files have the same bookmark structure for instant navigation to any section. Please note:



- Extensive hyperlinks are provided within the chapters.
- Use Acrobat’s “**Go to Previous View**” and “**Return to next View**” buttons to trace your complete navigational path.



- Use the “**Previous Page**” and “**Next Page**” buttons to go to the previous or next page within a file.
- Use Acrobat’s extensive search capabilities, such as the “**Find**” tool and “**Search Index**” tool to perform comprehensive searches as required.

Table of Contents and Index

Use the Table of Contents bookmarks to navigate a desired topic.

Click any item to instantly jump to that section of the guide. You can also use the **Index** to jump to specific topics within a chapter. Each page number in the **Index** is a hyperlink.

General Operations

To ensure trouble-free operation, please follow all procedures as listed below:

- For detailed installation instructions, refer to chapter 3 “Hardware Installation” on page 39.
- For communication software control guide, refer to Chapter 5, “Communication Software Control Guide” on page 55.
- For system setup and operations, refer to Chapter 6, “System Setup and Operations” on page 83.

Should you have any questions regarding the installation or operation of VSP 729, please consult with the factory. Refer to Appendix B on page 98 for contact information.

1. Introduction

Terms and Definitions

Terms and Definitions

The following terms and definitions are used throughout this guide.

- “**ASCII**”: American Standard for Information Interchange. The standard code consisting of 7-bit coded characters (8 bits including parity check) used to exchange information between data processing systems, data communication systems, and associated equipment. The ASCII set contains control characters and graphic characters.
- “**Aspect ratio**”: The relationship of the horizontal dimension to the vertical dimension of an image. In viewing screens, standard TV is 4:3, or 1.33:1; HDTV is 16:9, or 1.78:1. Sometimes the “:1” is implicit, making TV = 1.33 and HDTV = 1.78.
- “**AV**”: Audio visual, or audio video.
- A “**Background**” is an unscaled source, typically originating from a computer. A background source appears at the system’s lowest priority — visually in back of all other sources.
- “**Baudrate**”: Named of J.M.E. Baudot, the inventor of the Baudot telegraph code. The number of the electrical oscillations per second, called baud rate. Related to, but not the same as, transfer rate in bits per second (bps).
- “**Blackburst**”: The video waveform without the video elements. It includes the vertical sync, horizontal sync, and the chroma burst information. Blackburst is used to synchronize video equipment to align the video output. One signal is normally used to set up an entire video system or facility. Sometimes it is called House sync.
- “**BNC**”: Bayonet Neill-Concelman. A cable connector used extensively in television and named for its inventors. A cylindrical bayonet connector that operates with a twist-locking motion. To make the connection, align the two curved grooves in the collar of the male connector with the two projections on the outside of the female collar, push, and twist. This allows the connector to lock into place without tools.
- “**Brightness**”: Usually refers to the amount or intensity of video light produced on a screen without regard to color. Sometimes called “black level.”
- “**CAT 5**”: Category 5. Describes the network cabling standard that consists of four unshielded twisted pairs of copper wire terminated by RJ-45 connectors. CAT 5 cabling supports data rates up to 100 Mbps. CAT 5 is based on the EIA/TIA 568 Commercial Building Telecommunications Wiring Standard.
- “**Color bars**”: A standard test pattern of several basic colors (white, yellow, cyan, green, magenta, red, blue, and black) as a reference for system alignment and testing. In NTSC video, the most commonly used color bars are the SMPTE standard color bars. In PAL video, the most commonly used color bars are eight full field bars. In the computer, the most commonly used color bars are two rows of reversed color bars.
- “**Color burst**”: In color TV systems, a burst of subcarrier frequency located on the back porch of the composite video signal. This serves as a color synchronizing signal to establish a frequency and phase reference for the chroma signal. Color burst is 3.58 MHz for NTSC and 4.43 MHz for PAL.
- “**Color temperature**”: The color quality, expressed in degrees Kelvin(K), of a light source. The higher the color temperature, the bluer the light. The lower the temperature, the redder the light. Benchmark

1. Introduction

Terms and Definitions

color temperature for the A/V industry include 5000°K, 6500°K, and 9000°K.

- “**Contrast ratio**”: The ratio of the high light output level divided by the low light output level. In theory, the contrast ratio of the television system should be at least 100:1, if not 300:1. In reality, there are several limitations. In the CRT, light from adjacent elements contaminate the area of each element. Room ambient light will contaminate the light emitted from the CRT. Well-controlled viewing conditions should yield a practical contrast ratio of 30:1 to 50:1.
- “**DVI**”: Digital Visual Interface. The digital video connectivity standard that was developed by DDWG (Digital Display Work Group). This connection standard offers two different connectors: one with 24 pins that handles digital video signals only, and one with 29 pins that handles both digital and analog video.
- “**EDID**”: Extended Display Identification Data – EDID is a data structure used to communicate video display information, including native resolution and vertical interval refresh rate requirements, to a source device. The source device will then output the optimal video format for the display based on the provided EDID data, ensuring proper video image quality. This communication takes place over the DDC – Display Data Channel.
- “**Ethernet**”: A Local Area Network (LAN) standard officially known as IEEE 802.3. Ethernet and other LAN technologies are used for interconnecting computers, printers, workstations, terminals, servers, etc. within the same building or campus. Ethernet operates over twisted pair and over coaxial cable at speeds starting at 10Mbps. For LAN interconnectivity, Ethernet is physical link and data link protocol reflecting the two lowest layers of the OSI Reference Model.
- “**Frame**”: In interlaced video, a frame is one complete picture. A video frame is made up of two fields, or two sets of interlaced lines. In a film, a frame is one still picture of a series that makes up a motion picture.
- “**Gamma**”: The light output of a CRT is not linear with respect to the voltage input. The difference between what you should have and what is actually output is known as gamma.
- “**HDMI**” - High – Definition Multimedia Interface: An interface used primarily in consumer electronics for the transmission of uncompressed high definition video, up to 8 channels of audio, and control signals, over a single cable. HDMI is the de facto standard for HDTV displays, Blu-ray Disc players, and other HDTV electronics. Introduced in 2003, the HDMI specification has gone through several revisions.
- “**HDSDI**”: The high-definition version of SDI specified in SMPTE-292M. This signal standard transmits audio and video with 10 bit depth and 4:2:2 color quantization over a single coaxial cable with a data rate of 1.485 Gbit/second. Multiple video resolutions exists including progressive 1280x720 and interlaced 1920x1080 resolution. Up to 32 audio signals are carried in the ancillary data.
- “**JPEG**” (Joint photographic Experts Group): Commonly used method of lossy compression for photographic images using a discreet cosine transfer function. The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality. Produces blocking artifacts.
- “**MPEG**”: Motion Picture Expect Group. A standard committee under the auspices of the International Standards Organization working on algorithm standards that allow digital compression, storage and

1. Introduction

Terms and Definitions

transmission of moving image information such as motion video, CD-quality audio, and control data at CD-ROM bandwidth. The MPEG algorithm provides inter-frame compression of video images and can have an effective compression rate of 100:1 to 200:1.

- “**NTSC**”: The color video standard used in North America and some other parts of the world created by the National Television Standards Committee in the 1950s. A color signal must be compatible with black-and-white TV sets. NTSC utilizes an interlaced video signals, 525 lines of resolution with a refresh rate of 60 fields per second (60 Hz). Each frame is comprised of two fields of 262.5 lines each, running at an effective rate of 30 frames per second.
- “**PAL**”: Phase Alternate Line. A television standard in which the phase of the color carrier is alternated from line to line. It takes four full pictures (8 fields) for the color-to-horizontal phase relationship to return to the reference point. This alternation helps cancel out phase errors. For this reason, the hue control is not needed on a PAL TV set. PAL, in many transmission forms, is widely used in Western Europe, Australia, Africa, the Middle East, and Micronesia. PAL uses 625-line, 50-field (25 fps) composite color transmission system.
- “**Operator**”: Refers to the person who uses the system.
- “**PIP**”: Picture-in-Picture. A small picture within a larger picture created by scaling down one of the images to make it smaller. Each picture requires a separate video source such as a camera, VCR, or computer. Other forms of PIP displays include Picture-by-Picture (PBP) and Picture-with-Picture (PWP), which are commonly used with 16:9 aspect display devices. PBP and PWP image formats require a separate scaler for each video window.
- “**Polarity**”: The positive and negative orientation of a signal. Polarity usually refers to the direction or a level with respect to a reference (e.g. positive sync polarity means that sync occurs when the signal is going in the positive direction).
- “**RJ-45**”: Registered Jack-45. A connector similar to a telephone connector that holds up to eight wires, used for connecting Ethernet devices.
- “**RS-232**”: An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either DB-9 or DB-25 connectors. This standard is used for relatively short-range communication and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length, and type of connector to be used. The standard specifies component connection standards with regard to the computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard.
- “**Saturation**”: Chroma, chroma gain. The intensity of the color, or the extent to which a given color in any image is free from white. The less white in a color, the truer the color or the greater its saturation. On a display device, the color control adjusts the saturation. Not to be

1. Introduction

Terms and Definitions

confused with the brightness, saturation is the amount of pigment in a color, and not the intensity. Low saturation is like adding white to the color. For example, a low-saturated red looks pink.

- “**Scaling**”: A conversion of a video or computer graphic signal from a starting resolution to a new resolution. Scaling from one resolution to another is typically done to optimize the signal for input to an image processor, transmission path or to improve its quality when presented on a particular display.
- “**SDI**”: Serial Digital Interface. The standard based on a 270 Mbps transfer rate. This is a 10-bit, scrambled, polarity independent interface with common scrambling for both component ITU-R 601 and composite digital video and four channels of (embedded) digital audio.
- “**Seamless Switching**”: A feature found on many video switchers. This feature causes the switcher to wait until the vertical interval to switch. This avoid a glitch (temporary scrambling) which normally is seen when switching between sources.
- “**SMPTE**”: Society of Motion Picture and Television Engineers. A global organization, based in the United States, that sets standards for baseband visual communications. This includes film as well as video and television standards.
- “**S-video**”: A composite video signal separated into the luma (“Y” is for luma, or black and white information; brightness) and the chroma (“C” is an abbreviation for chroma, or color information).
- “**Sync**”: Synchronization. In video, sync is a means of controlling the timing of an event with respect to other events. This is accomplished with timing pulses to insure that each step in a process occurs at the correct time. For example, horizontal sync determines exactly when to begin each horizontal scan line. Vertical sync determines when the image is to be refreshed to start a new field or frame. There are many other types of sync in video system.(Also known as “sync signal” or “sync pulse.”)
- “**TCP/IP**”: Transmission Control Protocol/Internet Protocol. The communication protocol of the Internet. Computers and devices with direct access to the Internet are provided with a copy of the TCP/IP program to allow them to send and receive information in an understandable form.
- “**USB**”: Universal Serial Bus. USB was developed by seven PC and telecom industry leaders (Compaq, DEC, IBM, Intel, Microsoft, NEC, and Northern Telecom). The goal was easy plug-and-play expansion outside the box, requiring no additional circuit cards. Up to 127 external computer devices may be added through a USB hub, which may be conveniently located in a keyboard or monitor. USB devices can be attached or detached without removing computer power. The

1. Introduction

Terms and Definitions

number of devices being designed for USB continues to grow, from keyboards, mice, and printers to scanners, digital cameras, and ZIP drives.

- “**VESA**”: Video Electronics Standards Association. A nonprofit number organization dedicated to facilitating and promoting personal computer graphics through improved standards for the benefit of the end-user.
www.vesa.org
- “**VGA**”: Video Graphics Array. Introduced by IBM in 1987, VGA is an analog signal with TTL level separate horizontal and vertical sync. The video outputs to a 15-pin HD connector and has a horizontal scan frequency of 31.5 kHz and vertical frequency of 70 Hz (Mode 1, 2) and 60 Hz (Mode 3). The signal is non-interlaced in modes 1, 2, and 3 and interlaced when using the 8514/A card (35.5 kHz, 86 Hz) in mode 4. It has a pixel by line resolution of 640x480 with a color palette of 16 bits and 256,000 colors.
- “**YCrCb**”: Used to describe the color space for interlaced component video.
- “**YPbPr**”: Used to describe the color space for progressive-scan (non-interlaced) component video.

1. Introduction

System Overview

System Overview

VSP 729 is a seamless switcher that accepts a wide variety of video signals, including CVBS, YPbPr, computer RGBHV(VGA), DVI-D, HDMI, HDTV. It combines truly seamless, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations. With presentation-enhancing features such as independent Preview and Program outputs, numerous switching transition effects, multi windows operation up to 5 windows, 4 predefinition modes configuration, multiple user modes, internal test patterns, and multiple control methods, the VSP 729 is designed to deliver advanced capabilities to high-end presentation environments.

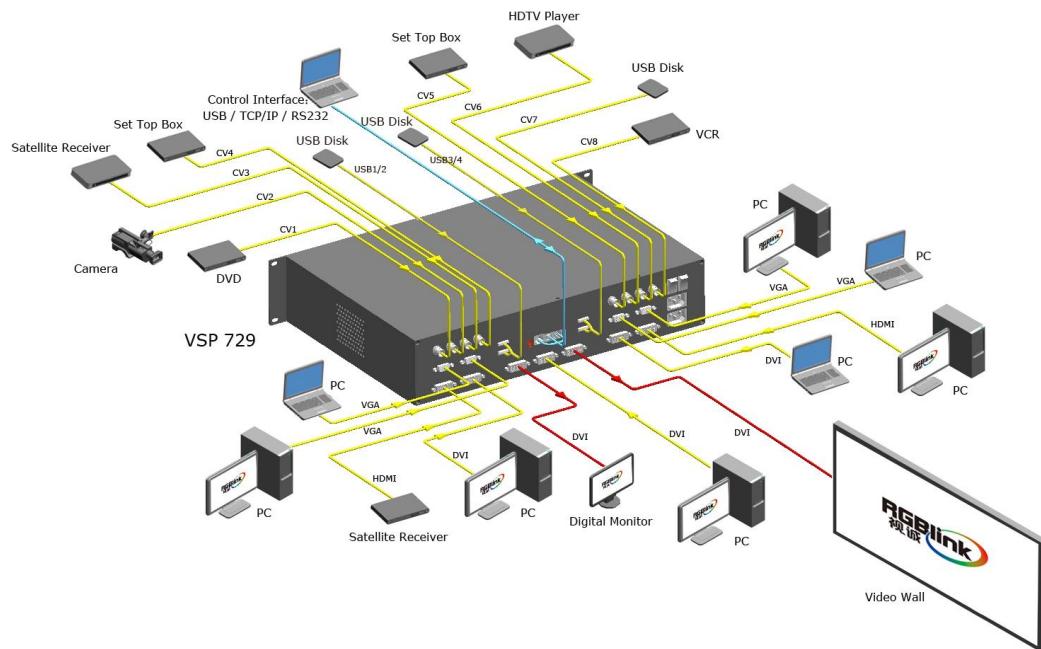
VSP 729 is ideal for stage, corporate boardrooms, auditoriums, houses of worship and other live events. Full setup and operation is available from the front panel as well as through RS-232 and Ethernet control. Furthermore, presentations can be managed using the RGBlink CP 1024 Remote Control Panel.

1. Introduction

Application Question

Application Questions

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our Customer Support Engineers. Refer to Appendix B for contact details.



2. Hardware Orientation

In This Chapter

This chapter provides detailed information about the VSP 729 hardware.

The following topics are discussed:

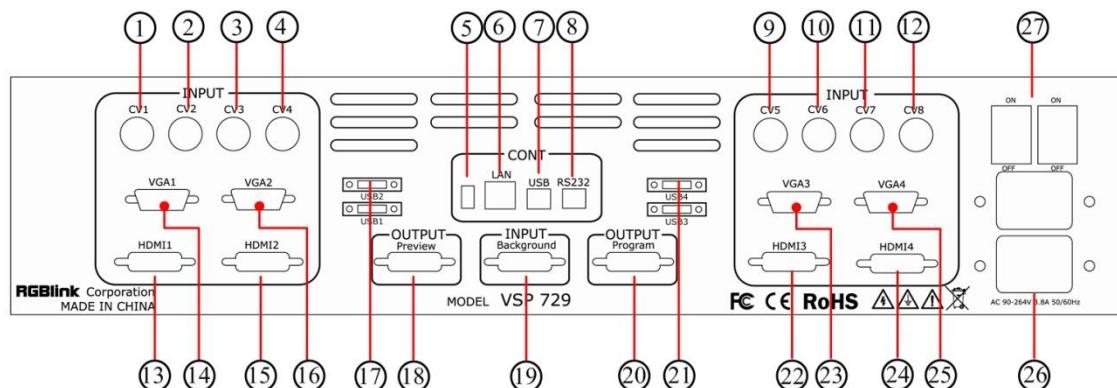
- [VSP 729 Rear Panel](#)
- [VSP 729 Front Panel](#)
- [VSP 729 Front Panel Keyboard Operation](#)

2.Hardware Orientation

VSP 729 Rear Panel

VSP 729 Rear Panel

The figure below illustrates the professional interface and control signals of VSP 729 rear panel.



NO	INTERFACE	NO	INTERFACE
1~4.9~12	CVBS input	14.16.23.25	VGA Input
5	Dial Switch	17.21	USB Input
6	10/100M Interface	18	Preview Input
7	USB Interface	19	Background Input
8	RS232 Interface	20	Program Input
13.15.22.24	HDMI Input	26.27	Switch and power

INPUT Interface

- 1) 8 CVBS inputs by BNC interfaces, 1 SVideo input;
- 2) 4 VGA input by DB15 interface. 4 DVI-I interface, can be compatible with HDMI inputs;
- 3) 4 USB inputs
- 3) 1 Background input

1~4 9~11:CVBS Input

CVBS input. Can receive standard video signal from players, cameras etc. Input supported resolution 480i and 576i through BNC. Supported standards include: PAL, NTSC and SECAM.

2.Hardware Orientation

VSP 729 Rear Panel

13.15.22.24:HDMI Input Interface

HDMI 1/2/3/4 input interface. Support HD Player、DVD、computer video signals, support resolution: SMPTE:625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50, 1080P59.94/60, 1080i50, 1080i59.94/60, 720p50, 720p59.94/60 ; VESA : 800×600×60Hz , 1024×768×60Hz , 1280×768×60Hz , 1280×1024×60Hz , 1600×1200×60Hz , 1920×1080×60Hz ;

Note

HDMI1~4 :standard DVI-I interface , compatible HDMI ;

14.16.23.25:VGA Input Interface

VGA 1/2/3/4 input interface, support HD Player、computer video signals .compatible YPbPr signals through DB9 interface ; support resolution: VGA-UXGA : 800×600×60 Hz, 1024×768×60 Hz, 1280×1024×60 Hz, 1440×900×60 Hz, 1600×1200×60 Hz;

17.21:USB Input Interface

USB 1/2/3/4 interface ; Used to connect the computer. Used to connect with external USB disk, to play the media files inside that.

19: Background Input Interface

Background input interface.support HD Player、computer video player signals through DVI-I interface. Accept DVI signals through DVI directly with the input resolution : 800×600×60Hz , 1024×768×60Hz , 1280×768×60Hz , 1600×1200×60Hz , 1920×1080×60Hz ;

2.Hardware Orientation

VSP 729 Rear Panel

Note

Back ground resolution should be the same to the set up output resolution.

OUTPUT Interface

18:Preview Output Interface

All VSP 729 outputs can be programmed as preview output, DVI and VGA outputs are set as preview in default.

Note

VGA output: VGA output is also go by DVI-I interface, by a DVI to VGA adaptor or a DVI to DVI+VGA split cable.

Support resolution:VESA:1024×768×60Hz,

20:Program Output Interface

Program output interface can connect with next displayer or send signal to LED through sending card. Output signals through DVI-I.

Support resolution:VESA:1024×768×60Hz,1280×768×60Hz,1600×1200×60Hz,1920×1080×60Hz.

CONTROL

5.Dial Switch

6.10/100M Interface

7.USB Interface

Use to connect the computer ;

8.RS232 Interface

Use to connect the computer;

2.Hardware Orientation

VSP 729 Rear Panel

Switch and power

26.Power

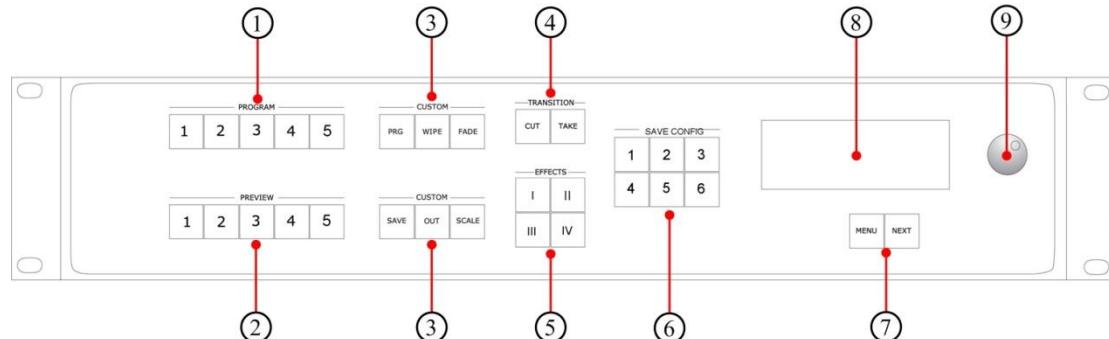
AC 90-264V 3.8A 50/60Hz IEC-3 Switch interface

27.Switch Interface

2.Hardware Orientation

VSP 729 Front Panel

VSP 729 Front Panel



编号		编号	
1	PROGRAM	6	SAVE CONFIG
2	PREVIEW	7	Keyboard
3	CUSTOM	8	LCD Module
4	TRANSITION	9	Knob Switch
5	EFFECTS		

PROGRAM

VSP 729 supports five display layers, four of them is programmable inputs,

the 5th one is background input ; More details please refer to :

PROGRAM .

PREVIEW

Program and choice signal source through preview 1234 and PRO.And

preview on the back panel.All program finished at the preview ;More details

please refer to : PREVIEW .

CUSTOM

Compile signal , effects configuration , save , out format selection , scaling

seting ; More details please refer to : CUSTOM.

2.Hardware Orientation

VSP 729 Front Panel

TRANSITION

Seamless cutting and seamless dissolving ; More details please refer to :

TRANSITION.

EFFECTS

Single image,dual image,three image,four image ; More details please refer

to : EFFECTS.

SAVE CONFIG

Parameter recalling;More details please refer to : SAVE CONFIG.

Keyboard

NEXT: push to confirm the current choice ;

MENU: push to go to main menu or exit from current choice item. ;

More details please refer to : keyboard

LCD Module

More details please refer to : LCD Module

Knob Switch

Running up and down,choose the menu of LCD ; More details please refer

to : Knob switch

2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation

VSP 729 Front Panel Keyboard Operation

Insert power cord and push power to ON position. LCD module on the front panel will show RGBLINK and go into self verification before it load last setting config and send processed image to the target monitor. For the first setup, CV1 input is default source. With front panel keyboard, user can operate VSP 729 through the menus on LCD panel.

VSP729 front panel as shown in figure::

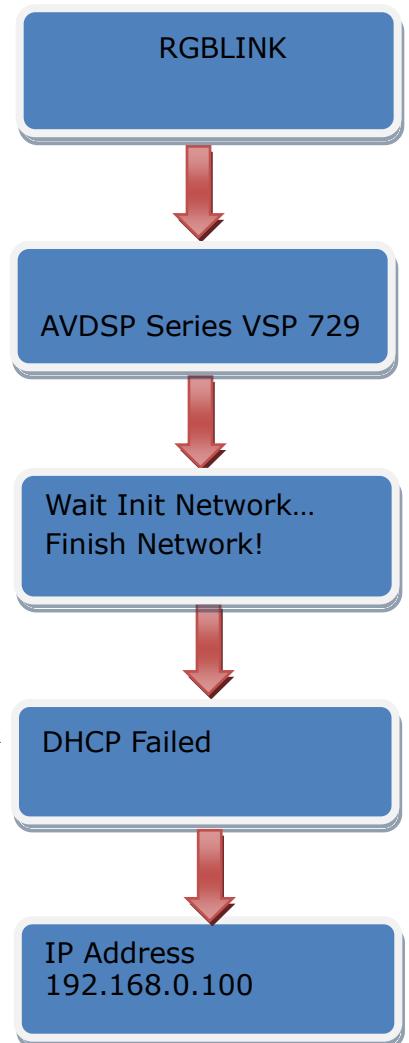
VSP 729 can be connect to the LAN through network

Cable,if the connection can not Find the LAN ,

it will show DHCP Failed

If connection to the LAN works,it will get a

Auto config IP address.Shown as following

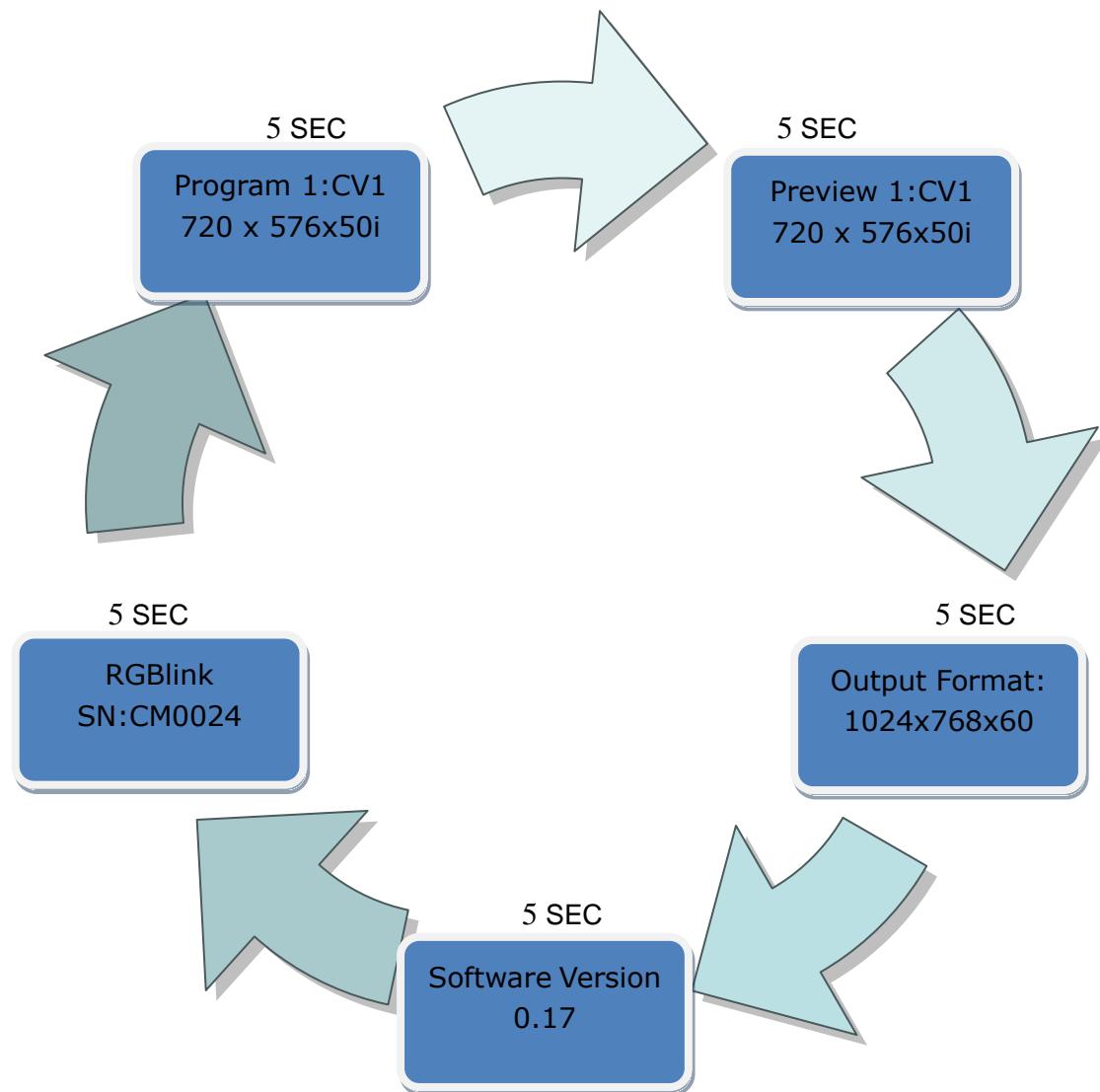


2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation

In to the cycle:

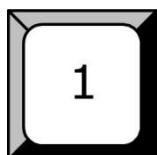
When in to the cycle ,it shows:the current input format,preview,the current output format,the current software information,the current device serial number.User have the device serial number will acquire more effective service and support.



2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation

PROGRAM



1 :Channel 1 ,program input ,Pressping this button can't work,lighting button is the signal on display.

2 : Channel 2 , program input , Pressping this button can't work,lighting button is the signal on display.

3 : Channel 3 , program input , Pressping this button can't work,lighting button is the signal on display.

4 : Channel 4 , program input , Pressping this button can't work,lighting button is the signal on display.

5 :Channel ,program input ,Pressping this button can't work,lighting button is the signal on display.

Pressping 1-4 , LCD module will show as following (select1):



Pressping5 , LCD module will show as following :

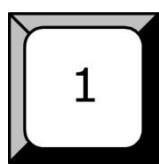


PREVIEW



2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation



1 : Channel 1 , program input , Pressing to switch to preview output

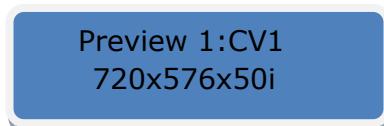
2 : Channel 2 , program input , Pressing to switch to preview output

3 : Channel 3 , program input , Pressing to switch to preview output

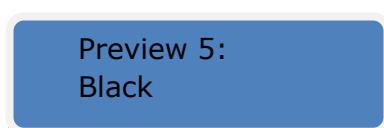
4 : Channel 4 , program input , Pressing to switch to preview output

5 : Channel , program input , Pressing to switch to preview output

Pressping1-4 , LCD module will show as following (select1):



Pressping5 , LCD module will show as following :



CUSTOM



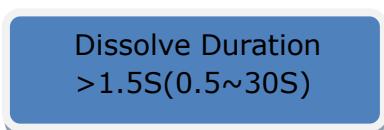
Select channel, Pressing this button to program the input source ,
HDMI、DVI、VGA、YPbPr , CVBS1 , CVBS2 , CH1 , CH2 , CH3 ,
CH4(matrix).



Pressing the button to enter Effects Configuration Menu,multiples effects
are available, such as Wipe hard,Wipe Plus out.



Pressing the button to enter fade in fade out configuration menu,users can
set the duration time of fade effect.The duration time of fade:0.5~30S.

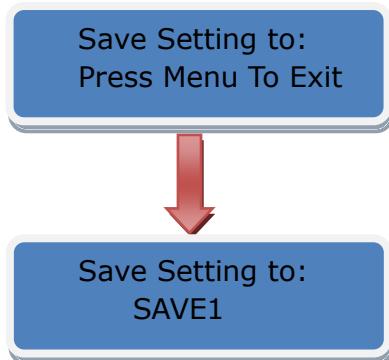


2.Hardware Orientation

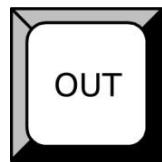
VSP 729 Front Panel Keyboard Operation



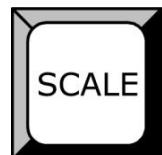
Pressing to ready to save user customize configuration: SAVE CONFIG 1、2、3、4、5、6. Pressing SAVE CONFIG 1、2、3、4、5、6 to recall the saving parameters ;



SAVE CONFIG 1、2、3、4、5、6 , select mode , such as 1 :



Out format selection, Pressing this button enter into current format, select the format through rotary switch , VSP 729 support four output resolution , More details please refer to OUT ;



Pressing to go to scaling setting , under PIP can set sub-main image size and position ;

Note

Scaling is only valid for the program output, while preview image keeps full screen. Scale is only enable when user select the same layer under Preview and Program.

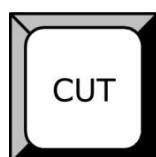
User can change the screen size and position through change numeric parameters. Apply to LED user.

2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation

TRANSITION

—TRANSITION—



Seamless cutting button,press the button to switch preview out to Program Output ;

Cut to 3:

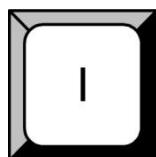
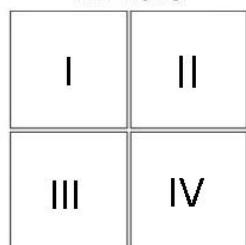


Seamless dissolving ,press the button to switch preview out to Program Output with dissolving transition effect.

Take to 3:

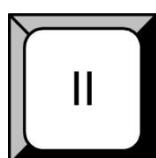
EFFECTS

—EFFECTS—



Pressing to make single image ;

Setup Single Mode:
Finished!



Pressing to make dual-image ;

Setup PIP Mode:
Finished!

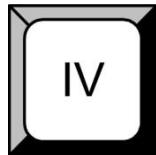
2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation



Pressing to make three image ;

Setup 3PBP Mode:
Finished!

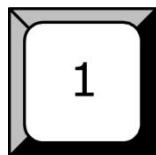


Pressing to make three image

Setup 4PBP Mode:
Finished!

SAVE CONFIG

SAVE CONGIG		
1	2	3
4	5	6



1: Save1 , Pressping the button to recall the saving parameters ;

2: Save 2 , Pressping the button to recall the saving parameters ;

3: Save 3 , Pressping the button to recall the saving parameters ;

4: Save 4 , Pressping the button to recall the saving parameters ;

5: Save 5 , Pressping the button to recall the saving parameters ;

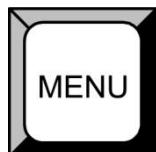
6: Save 6 , Pressping the button to recall the saving parameters ;

Load Setting From:
SVEV1 Finished!

2.Hardware Orientation

VSP 729 Front Panel Keyboard Operation

KER BOARD

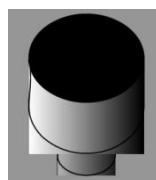


Menu:push to go to main menu or exit from current choice item ;



Next:push to confirm the current choice.

Knob switch



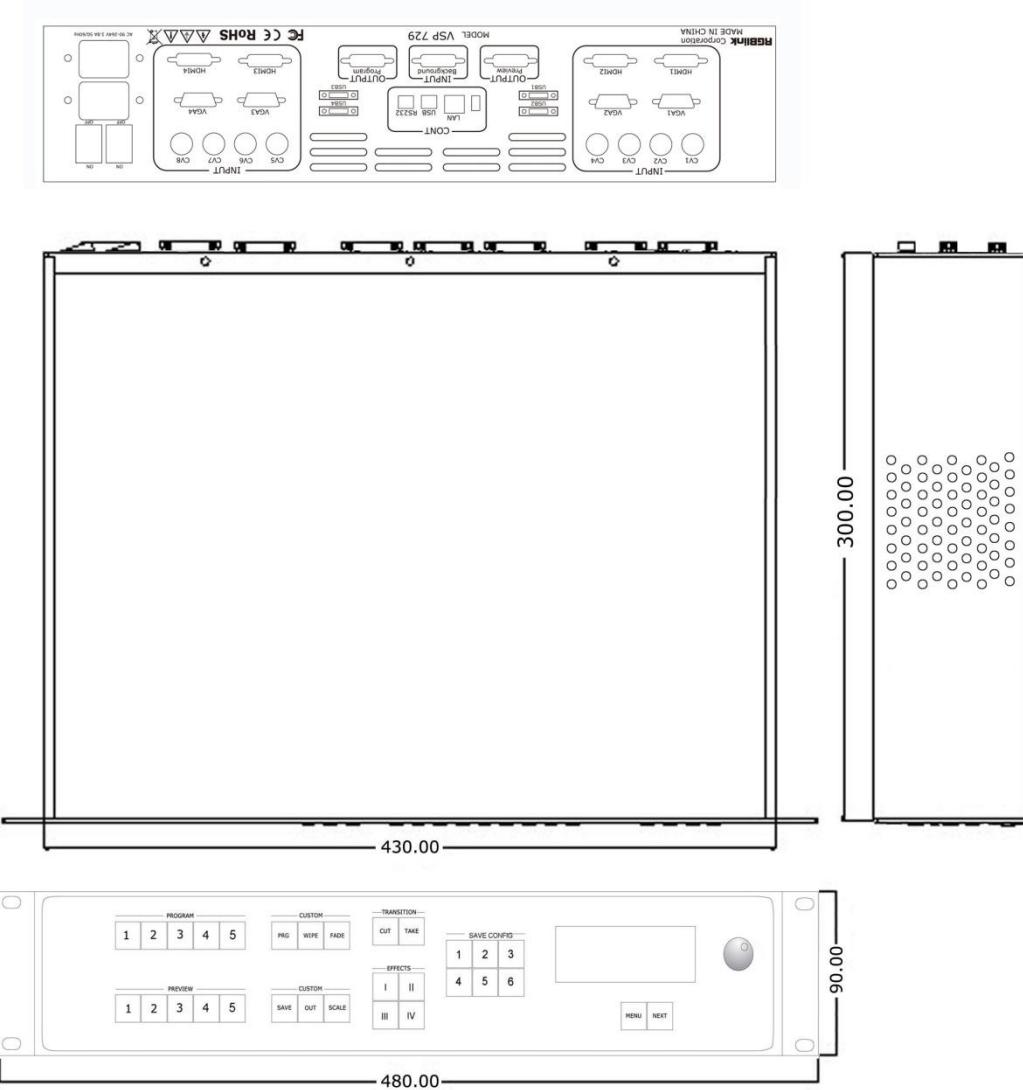
Running up and down,select the menu of LCD.

3. Hardware Installation

In This Chapter

This chapter provides comprehensive installation instruction for VSP 729 hardware:

Following is the size of VSP 729 for your reference.



Safety Precautions

For all VSP 729 processor installation procedures, please observe the following important safety and handling rules to avoid damage to yourself and the equipment.

- To protect users from electric shock, ensure that the chassis connects to earth through the ground wire provided in the AC power Cord.
- The AC Socket-outlet should be installed near the equipment and be easily accessible.

Unpacking and Inspection

Before opening VSP 729 process shipping box, inspect it for damage. If you find any damage, notify the shipping carrier immediately for all claims adjustments. As you open the box, compare its contents against the packing slip. If you find any shortages, contact your sales representative.

Once you have removed all the components from their packaging and checked that all the listed components are present, visually inspect the system to ensure there was no damage during shipping. If there is damage, notify the shipping carrier immediately for all claims adjustments.

Site Preparation

The environment in which you install your VSP 729 should be clean, properly lit, free from static, and have adequate power, ventilation, and space for all components.

4. Menu Orientation

In This Chapter

This chapter describes all VSP 729 processor menus, including how they are accessed, the functions that are available, and descriptions of each menu tree (in block diagram format).

The following topics are discussed:

- PROG
- WIPE
- OUT
- SCALE
- MENU
 - MENU
 - Dev Info
 - Reset
 - Matrix
 - TP
 - AB Mode
 - Crop
 - Picture
 - BG
 - Scale
 - Advance
 - Time
 - Calendar
 - Language
 - OUT

4.Menu Orientation

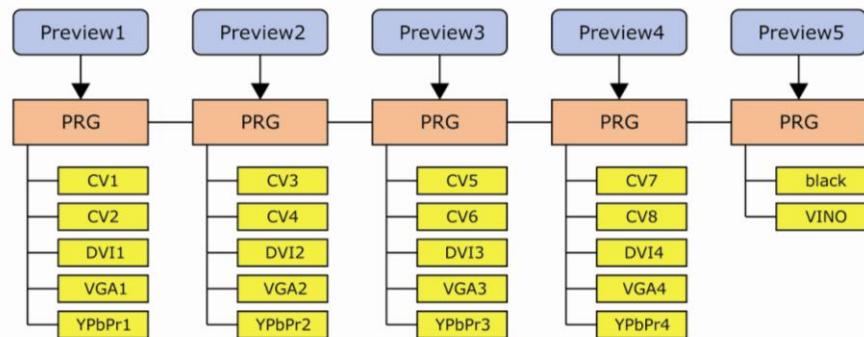
PROG

PROG

Select channel,Pressping this button to program the input source,

HDMI、DVI、VGA、YPbPr, CVBS1, CVBS2, CH1, CH2, CH3,

CH4(matrix) .



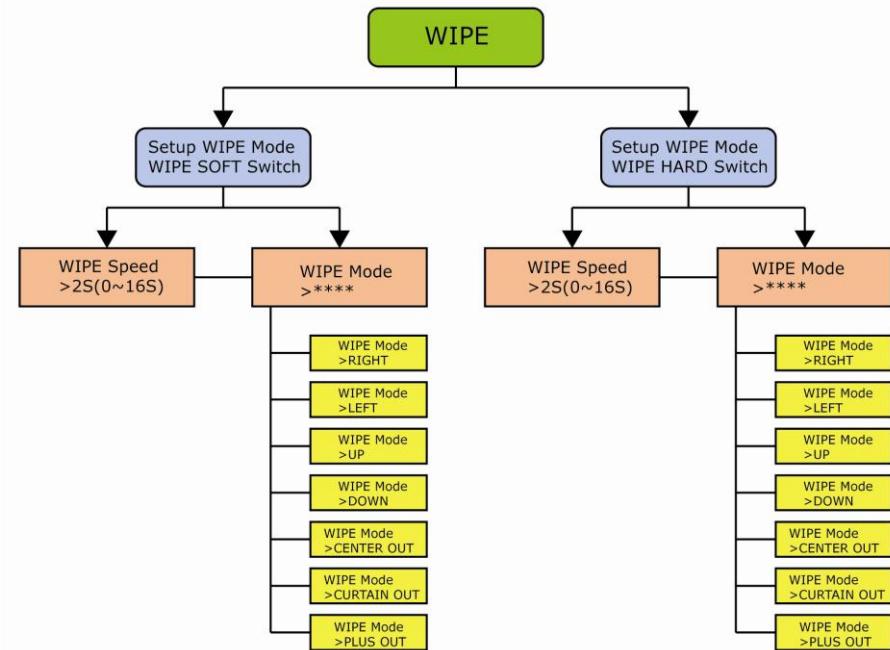
Pressping the Preview, and Pressping PROG, rotate the knob switch to show tree diagram on the LCD.User can select by need to.Preview5 in to set background, User can select Black or VINO.

4.Menu Orientation

WIPE

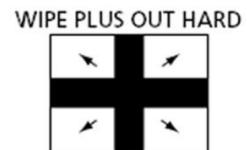
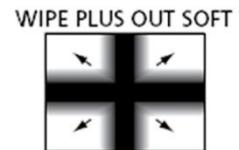
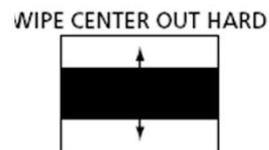
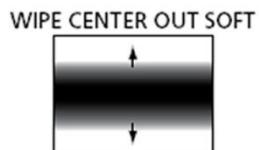
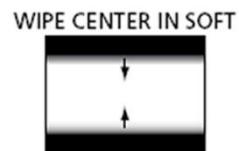
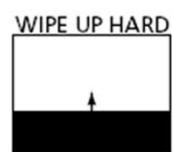
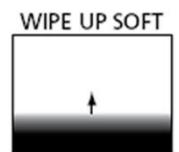
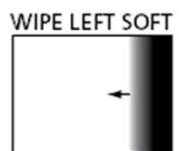
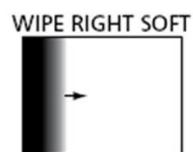
WIPE

Press the button to enter Effects Configuration Menu, multiples effects are available are available.



4. Menu Orientation

WIPE



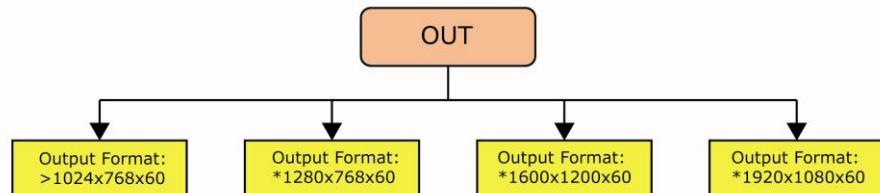
4.Menu Orientation

OUT

OUT

Out format selection, Pressing this button enter into current format,
change the format through rotary switch.

VSP 729 support four output format;s following:

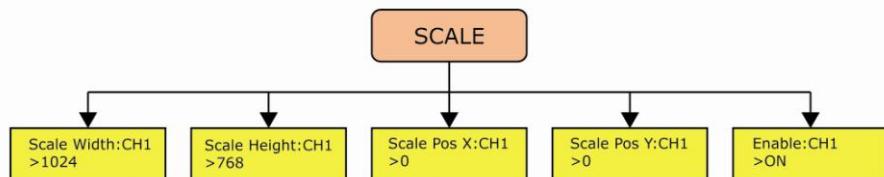


4.Menu Orientation

SCALE

SCALE

Pressping to go to scaling setting, under PIP can set sub-main image size and position;



Note

Scaling is only valid for the program output,while preview image keeps full screen.Scale is only enable when user select the same layer under Preview and Program.

User can change the screen size and position through change numeric parameters.Apply to LED user.

4. Menu Orientation

MENU

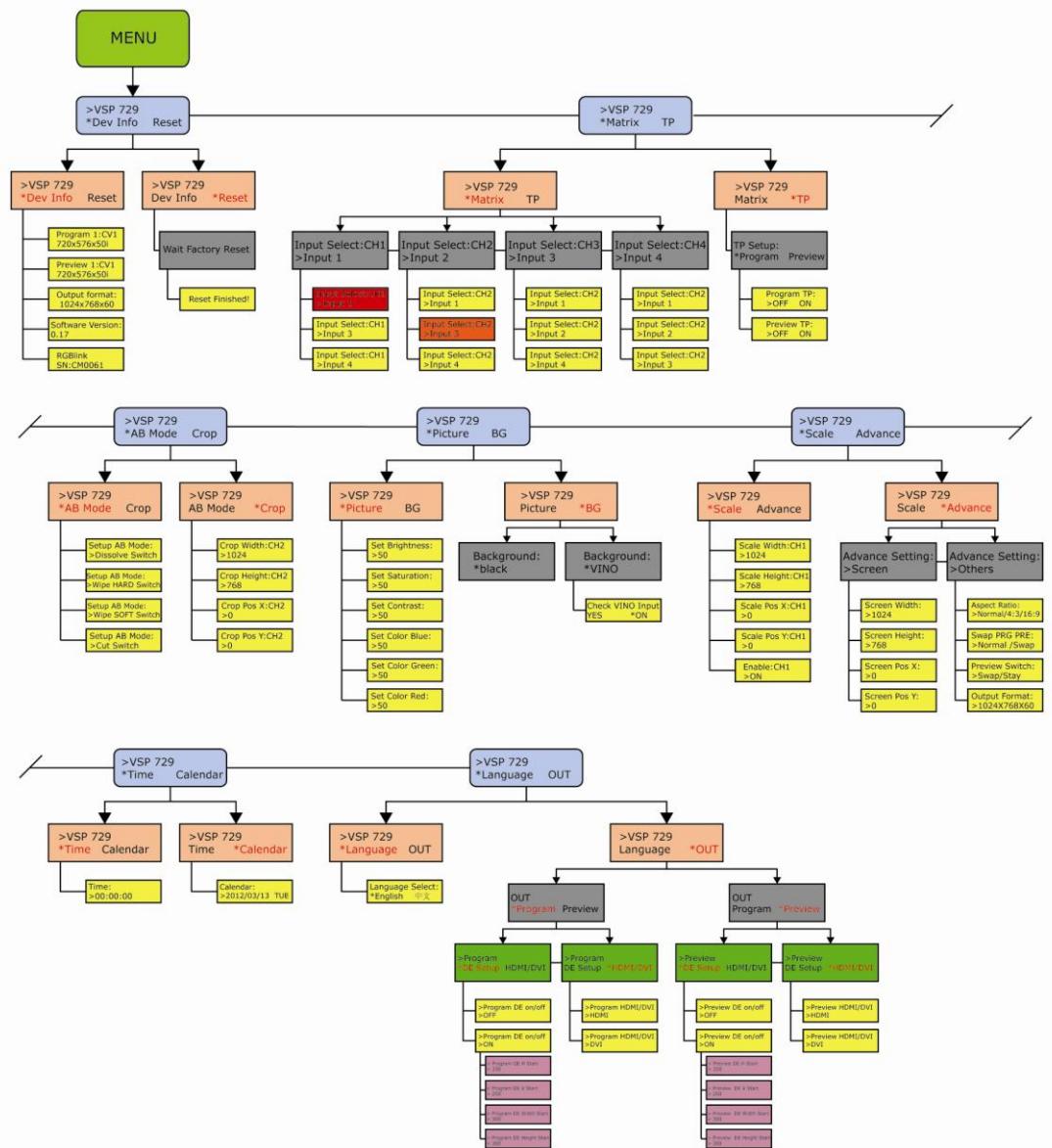
MENU

push to go to main menu or exit from current choice item.

Pressing to enter to system menu .System menu will show as following:

button to select the left or right menu. Before the menu item,

if there is a * sign, means the menu item has been selected.



4.Menu Orientation

MENU

MENU---Dev Info

Select Dev Info ,Pressing NEXT ,It will show the information of input and output video signals.As picture above ,running the knob switch can check preview output format,output format, program version,the current in marsat seria number.

MENU---Reset

elect Reset,Pressping NEXT to previously saved user-mode will be clear;and it will show as picture above.

MENU---Matrix

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu.Select Matrix and Pressping Next to go into Matrix, menu including:

Matrix: Can save other any channel in channel 1.Such as the red display above.Motioned for: the channel 2 signal copy to channel 1,The orange display motioned for:the channel 3 signal copy to channel 2.

MENU---TP

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu .Select TP and Pressping menu.Menu including:Pressping Next to go into Program .User can select OFF or ON.The same operation can be set Preview TP.

Note

TP farm is Color Bar , Resolution: 1024x768x60.

MENU---AB Mode

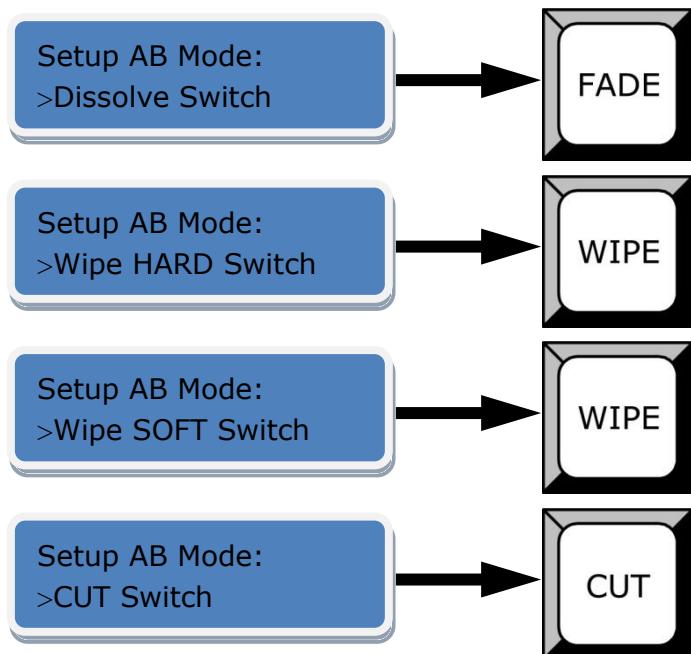
Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu . 【AB Mode】 : Full screen switch, Full screen transparent switch, Opening ceremony switch, Opening ceremony

4.Menu Orientation

MENU

transparent switch But also other fourteen seamless transition effects: wipe right ,wipe left ,wipe up,wipe down, wipe center out, wipe curtain out ,wipe square out etc.

Running knob switch and select AB Mode ;Stretching including: CUT Switch wipe right, wipe left ,wipe up,wipe down, wipe center out, wipe curtain out ,wipe square out etc.And DISSOLVE Switch



MENU---Crop

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu to go into Crop:

Crop Width;

Crop Height;

Crop Pos X;

Crop Pos Y ;

MENU---Picture

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu to go into Picture:

Set Brightness: To change the brightness value of image;

4.Menu Orientation

MENU

Set Contrast: To change the contrast value of image;

Set Saturation: To change the saturation value of image;

Set Color Red : To change the red color value of image;

Set Color Green: To change the green color value of image;

Set Color Blue: To change the blue color value of image;

Users can adjust the settings according to the actual situation, this function is mainly applied to the technician who is very professional at the image quality. However, if there is any improper operation and image quality errors or distortion occur, reset the device from main menu Recall.

MENU--- BG

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu to go into BG:Running knob can select BG,Black is Background, Vel NO is the input Background.

Note

Background input picture resolution is the same as output resolution ;

MENU--- Scale

Pressping Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu to go into Scale:

Scale Width;

Scale Height;

Scale Pos X;

Scale Pos Y;

Enable: The channel switch. If select OFF, the channel will be closed, and will blank screen when switchover.

Note

The same operation can be set Scale.

4.Menu Orientation

MENU

MENU--- Advance

Pressing Menu to go back main menu and use the Knob button and Next to go into Crop setting sub menu to go into Advance:

Pressing NEXT to go into Screen as picture above:

Screen Width;

Screen Height;

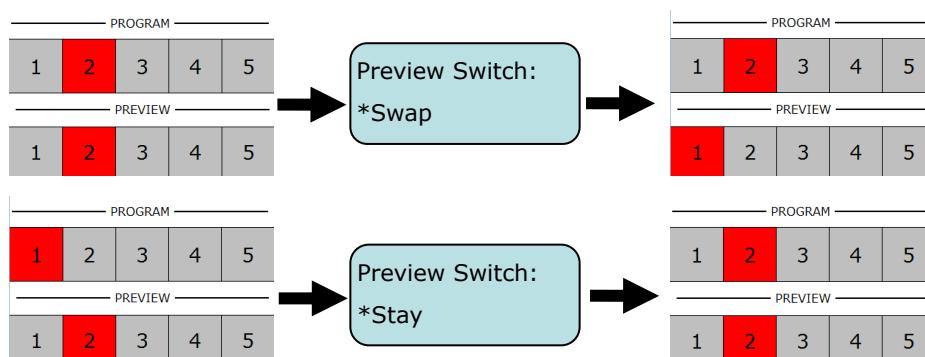
Screen Pos X;

Screen Pos Y ;

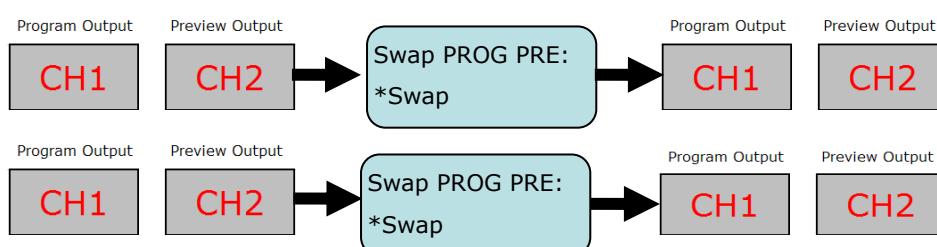
Can realize the narrowing of the signal and the full screen switch.

Knob the switch select Others, and Press NEXT to enter other set. And There are Aspect Ratio Normal ratios are 4: 3 and 16: 9, spin the knob to realize the conversion between the two types.

Knob the switch to select Swap or Stay. If select Swap then Press CUT/TAKE can realize between the Program and Preview. If select Stay the Program will turn to channel 2. Preview will stay channel 2. As following:



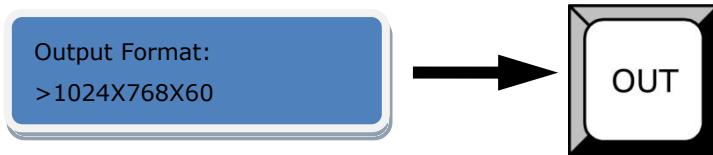
Knob the switch and select Swap PROG PRE, also select Swap or Normal to realize the conversion between (Swap) and (Normal) of Preview and Program. As following:



4.Menu Orientation

MENU

Select Output Format, details funtions is the same as OUT



MENU--- Time

Press MUNU , return to the main menu ,knob the switch to set Time.Press NEXT to enter Time setting; Press NEXT to activate the Time setting,if there is a * sign ,means the menu item has been selected;spin the knob from the front keyboard to revise the time.

MENU--- Calendar

Press MUNU , return to the main menu ,knob the switch to set Calendar; Press NEXT to enter Calendar setting;Date shows on the left side,Day shows on the right side;Press NEXT to activate the Calendar setting, if there is a * sign, means the menu item has been selected , Knob the switch to change the value ;

MENU--- Language

Press MUNU , return to the main menu ,knob the switch to set Language;Knob the switch to inter Language setting;Press NEXT to set.Inter the corresponding sub-menu settings; go to program sub-menu as shown:To select the LED language in English or Chinese.

MENU--- OUT

Press MENU , return to the main menu;Press MENU and select OUT to set DE and choice output format(HDMI or DVI)

Select Program Press NEXT to inter the corresponding sub-menu settings;Firstly setting DE Setup; Select ON and Press NEXT to inter DE setting.

DE H Start;

DE V Star;

4.Menu Orientation

MENU

DE Width;

DE Height;

When signal work on the display,the side of display show black,Use this setting to make the full-screen.Select Program Press NEXT to select the output interface HDMI/DVI.Normal interface is DVI,Select HDMI when need to HDMI.The same way can set Preview.

5. Communication Software Guideline

In This Chapter

This chapter provides detailed information about the control communication software. The following topics are discussed:

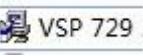
- Install Software
- Run Software
- How to control processor through RS232?
- How to control processor with console software by USB?

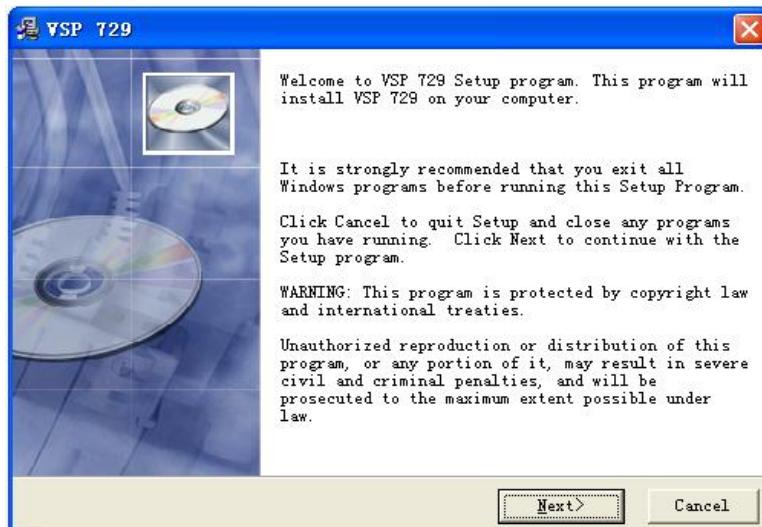
5. Communication Software Guideline

Install Software

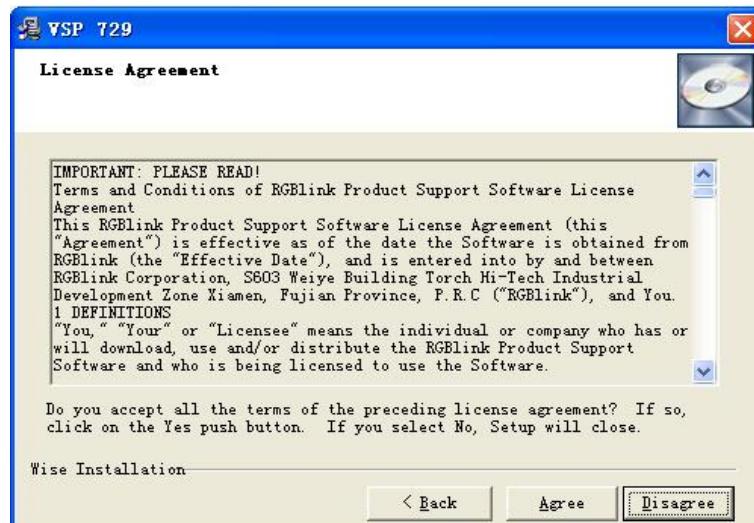
Install Software

AVDSP video processor is very easy to be configured with user friendly communication software, support drag and drop operation for edit and display. Also it can be customized with schedule function.

Double click  to install, English version default for use, click "select" to next dialog:

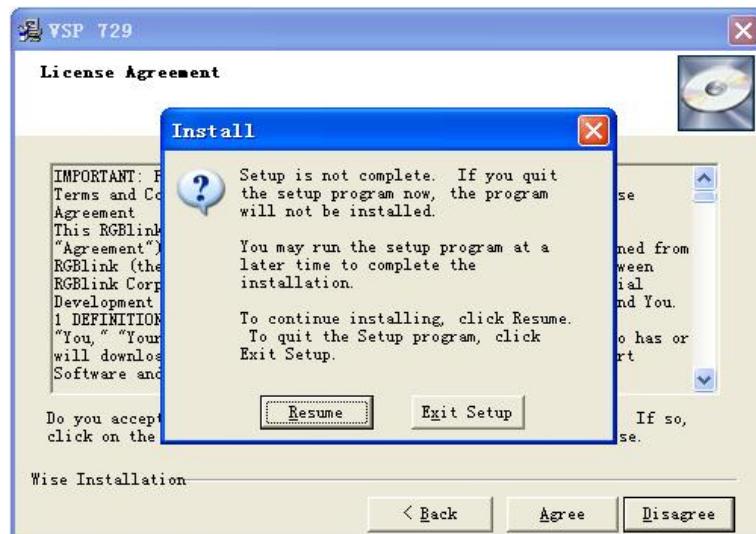


And in next dialog is the user agreement of the software, click Agree to go on:

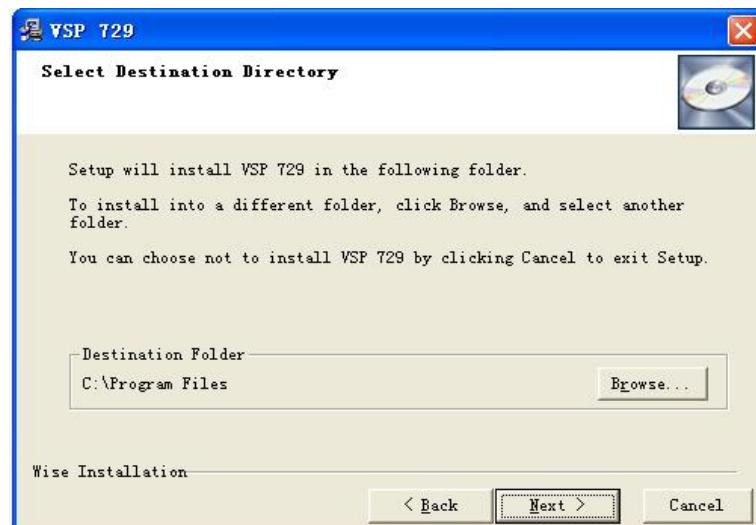


5. Communication Software Guideline

Install Software



User can select “Change” to choose the VSP 729 install software:



Click “Next” to go on:



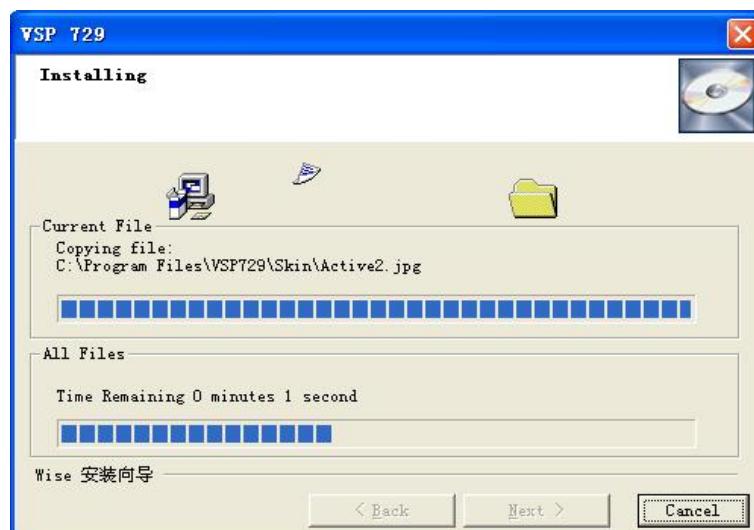
Click “Next” to go on:

5. Communication Software Guideline

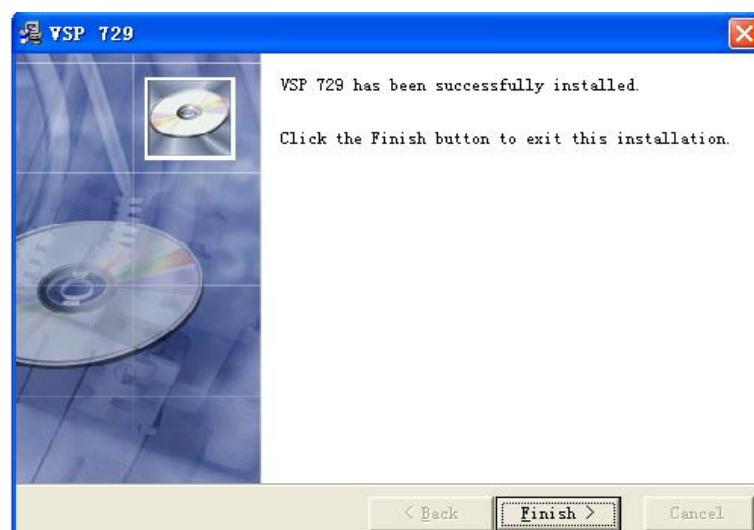
Install Software



Click "Next" to go on:



Click "Finish" and ready to run VSP729 console:

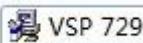


5.Communication Software Guideline

Run software

Run software

Install communication which comes with the package of VSP 729 device.

Double click  icon from home screen to run the software.

Double click  icon from home screen to run the software.

VSP 729 communication software interface as shown:



Set Up Communication

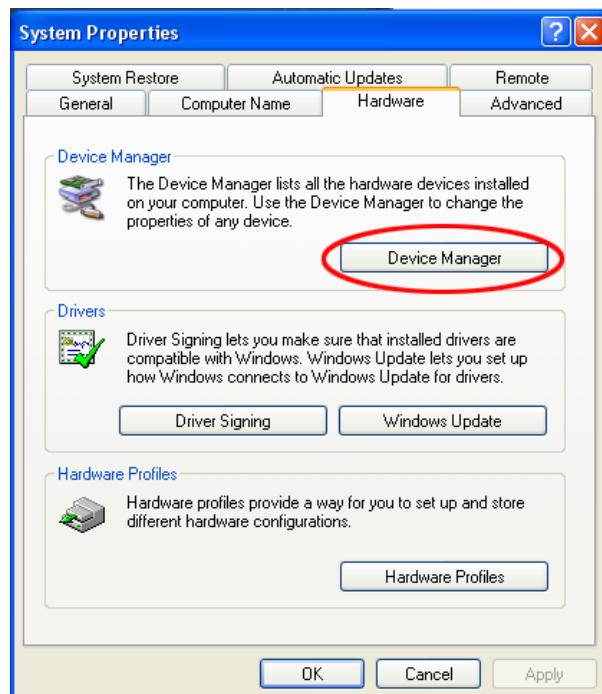
Use VSP 729 there are power line ,three line of control,one reticle.one USB line,one RS-232,one DB9F, and one 6B4C.

Below are the detail about connection steps:

Set up DB9F to the correspondence interface on the computer. And set up COM to the RS232. Open the video processor; Next to the operation of a computer ,back to the desktop window,the right button click on the "my computer", find "hardware" As show, the left button click on the device manager.

5.Communication Software Guideline

Run software



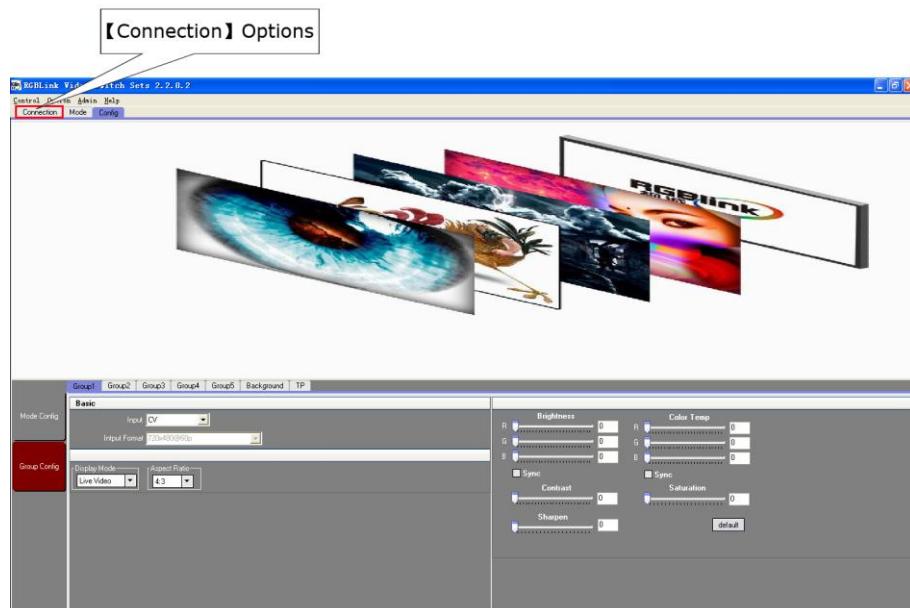
Find COM and LPT,click the "+" on the left,Record the name of serial port the computer provide.As show ,the serial port is COM6



Open the control software after select the serial port.Find SET UP ,click to enter setup option:

5. Communication Software Guideline

Run software



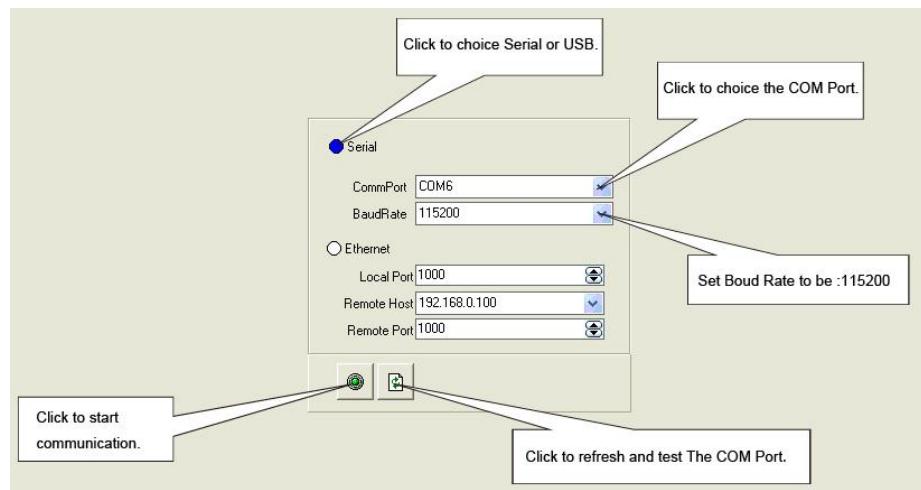
Serial is the default COM, click icon to refresh COM number,

choose

available COM, default Baudrate is 115200. After serial setting, click

icon, The icon becomes when successfully connected, on the left

bottom showing COM6: Opened.

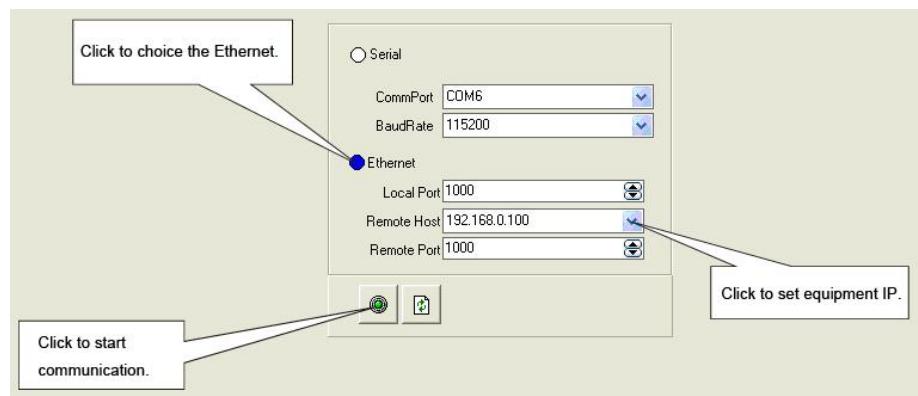


Note

RS 232 can be 100M upgrade, USB line shall not do this upgrade.

5. Communication Software Guideline

Run software



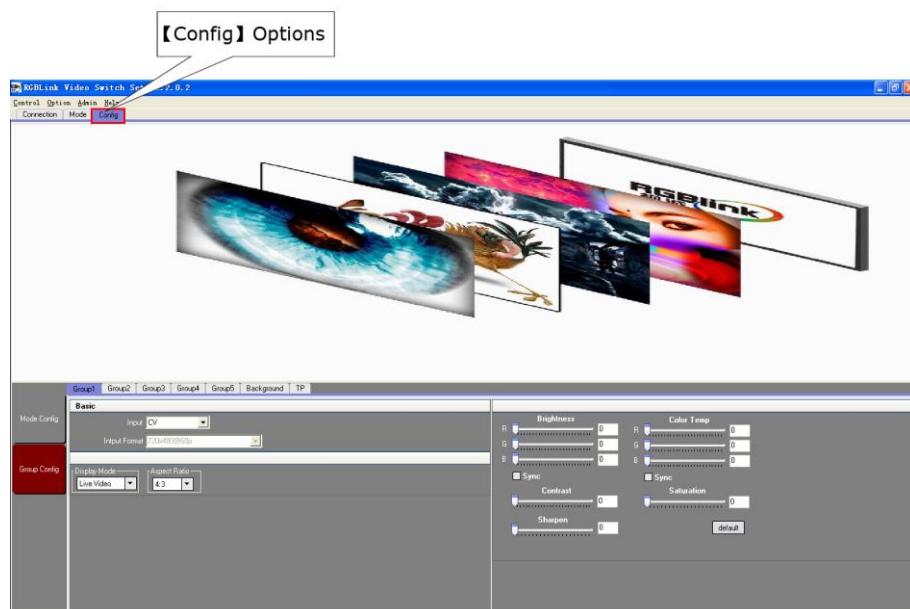
Ethernet: user can fill any number less than 1023 in Local Port. The Remote Port must be 192.168.0.100 and the Remote Port must be 1000.

After setting above, click the icon to connect with network. If successfully connected, the icon

becomes , Status on the left bottom showing

Mode configuration:

User need to set output after set up communication.Configuration and Input Configuration is the same as PROG.If has the key programming,can ignore this operation.Detail More details please refer to:PROG.

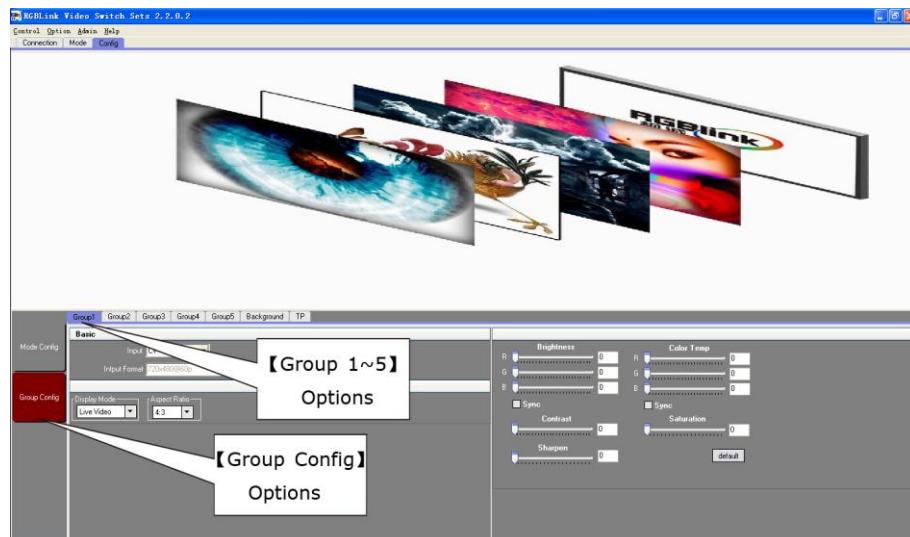


5.Communication Software Guideline

Run software

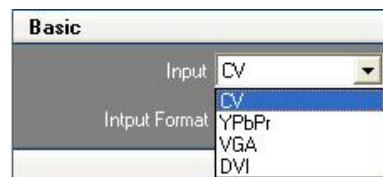
Input setting

setting: Configure Input information , can configurate for Input 1,Input 2, Input 3,Input 4,Input 5 separately.



Input source choice

CV,YPbPr,VGA,DVI input sources.



According to the actual input signal source edit definition.

Note

the same as PROG function.

Input resolution

Shows the resolution of current input source.Just for inquiry,not operation.



Display Mode

offers 2 different display modes, when selected “live video ”,video will be played normally, when selected “freeze” the display only shows the last frame.

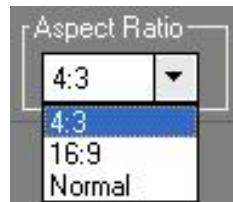
5. Communication Software Guideline

Run software



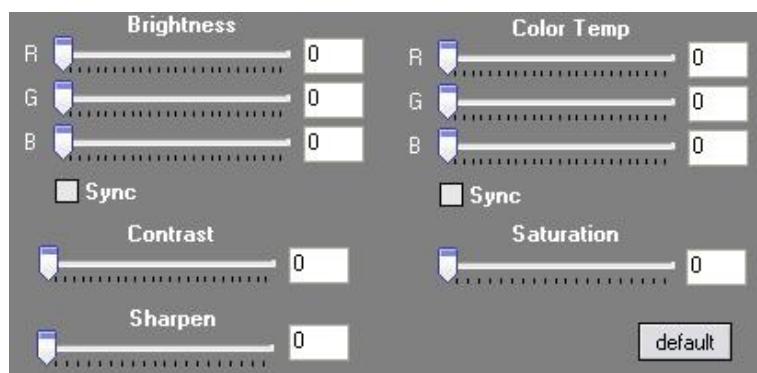
Ration

User can choose 4:3 or 16:9 from scrolling down list ;



Image

Can set the brightness of the image, color temperature, contrast and saturation, sharpening

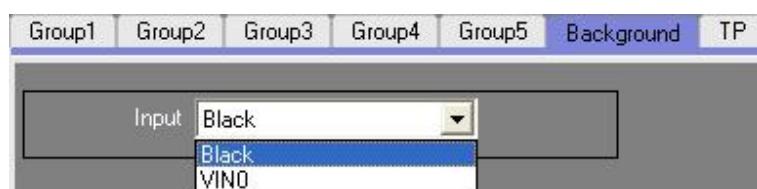


Note

The set is the same as Picture.

Background

Background can be set as black color black-field or VINO video signal input. (When setting VINO as video input; make sure that the resolution of background is the same as output resolution.)



5.Communication Software Guideline

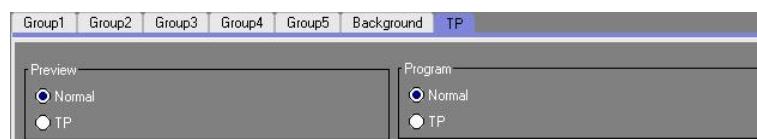
Run software

Note

The set is the same as BG.

TP

Test pattern image is color toolbar , with resolution 1024x768x60, both preview and program can be set.



Note

The set is the same as TP.

Mode configuration

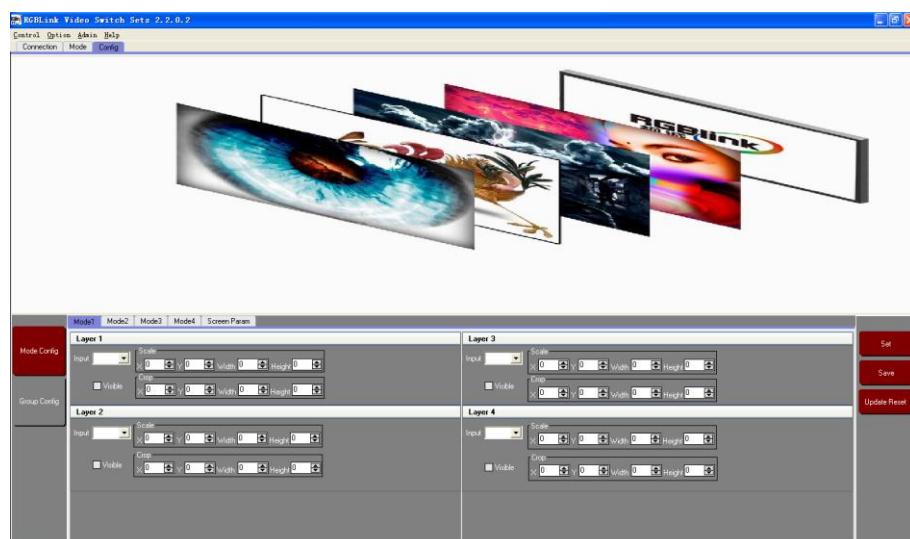


Image input

VSP 729 is a multi-layer processor, the data of each layer can be set from this toolbar. Dates can be input at any combination, i.e.,the four different layers can be configurated by the same channel or by the 4 totally different channels. That is what call “ Matrix Function”. Scale , Zoom ,Crop can be realized by entering the value or rolling down the list, or drag and drop the picture .

5.Communication Software Guideline

Run software

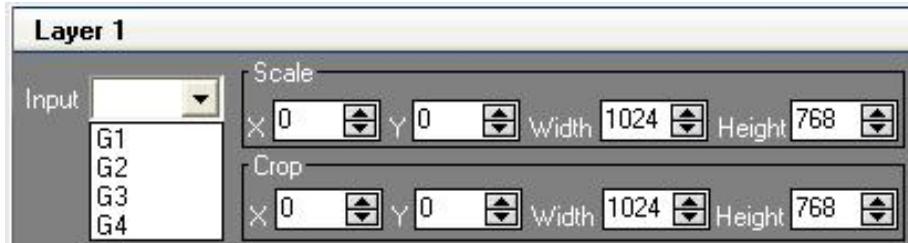
Note

Input 1~4 corresponding **EFFECTS**

I:single image , II: dual-image , III: three image ,

IV: four image , Deal with only 1 layer to show

Layer



Layer input can set as other layer input to come true Matrix.

Note

The set is the same as Matrix.

Layer Scale can set the size and position of image.

Note

The set is the same as Scale.

Layer Tailor can tailor input image

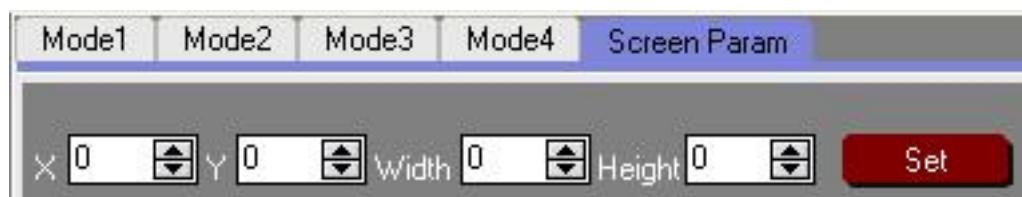
Note

The set is the same as Crop.

Screen Param

User can set screen size as need toed , then click Set , can switching with

FS to realize full screen and scale



5.Communication Software Guideline

Run software

Set

click 【set】 button each time to confirm the setting.



Save

Click 【SAVE】 to save all the revised parameters. The scrolling list indicated the location to be saved to. If successfully, user can call it



Update reset

Click this button to recall the factory setting.



Mode control

Interface as following :

5. Communication Software Guideline

Run software



Preview

Left part is preview window, Input signal information will be shown on the

top left corner 

resolution, the bottom part's  button 1,2,3,4,5 corresponds with preview channel, color green tells button is selected. Preview image can be switched by buttons 1,2,3,4, 5in order to preview the four channels.

The set is the same as Preview.

Program

Right part is programme window, Input signal information will be shown on

the top left corner 

such as signal types and its resolution, the bottom part's button 1,2,3,4,5 

corresponds with programme channel, Programme output image can be

5. Communication Software Guideline

Run software

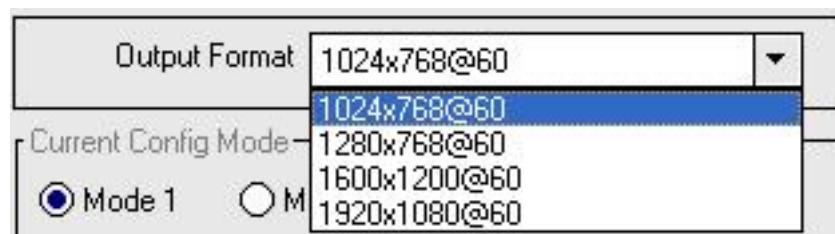
switched by buttons 1,2,3,4, also can drag and drop the image to adjust the size and position of the programme output Signal.

Note

The set is the same as Program.

Output resolution toolbar

User can choose three output resolutions by selecting from scrolling down list.



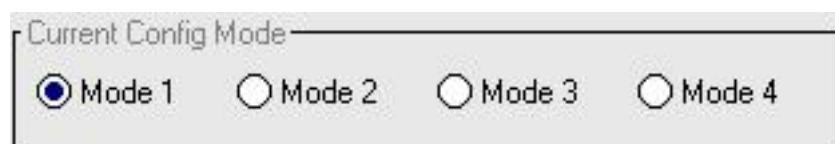
Note

the same as → Advance → Others →
Output Format or OUT.

Current config mode

mode: Mode1 refers to single picture, Mode 2 refers to h dual pictures, mode 3 refers to three pictures., mode 4 refers to four pictures.Picture mode only works for Program output, while preview output always

keeps as single output



Note

The same with EFFECTS .

Switch mode

CUT: will switch preview image to program output

5.Communication Software Guideline

Run software

Take: will switch preview image to program output with special effects.



Note

the same as → Advance → Others →
Preview Switch → Swap/Stay.

Call saving modes

Click the buttons as followings to apply.



Note

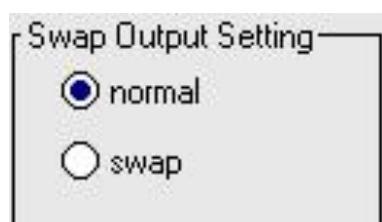
the same as SAVE CONFIG,support six save mode,VSP729 support ten save modes.

Switch output mode

Cut: will switch preview image to program

output;

Normal: will stay preview image to program output;



Note

the same as → Advance → Others →
Swap PROG PRE → Swap/Normal.

5.Communication Software Guideline

Run software

CUT



seamless cut button, will switch preview image to program output;

Note

the same as CUT.

Take

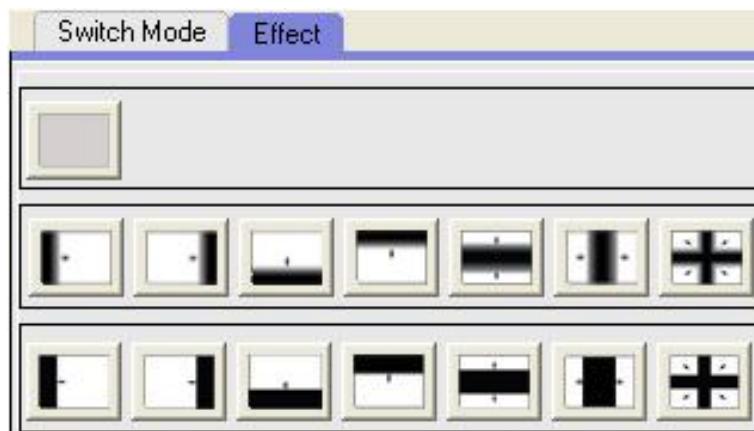


seamless transition effects button, will switch preview image to program output with special effects;

Note

the same as Take.

Effects Toolbar



The device not only provides the most common fade effects(in default),but also other fourteen seamless transition effects: wipe right ,wipe left ,wipe up,wipe down, wipe center out, wipe curtain out ,wipe square out etc.

Note

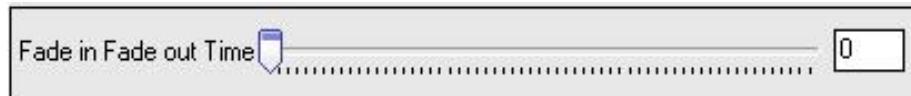
the same as WIPE.

5.Communication Software Guideline

Run software

Fade duration

set the value for duration(1-30s)from progress toolbar



Note

the same as FADE.

Switch effect speed

set the grades(1-16 grades)for switch speed



Width of transparent toolbar

set the pixels(0-255 pixels) for transparent;

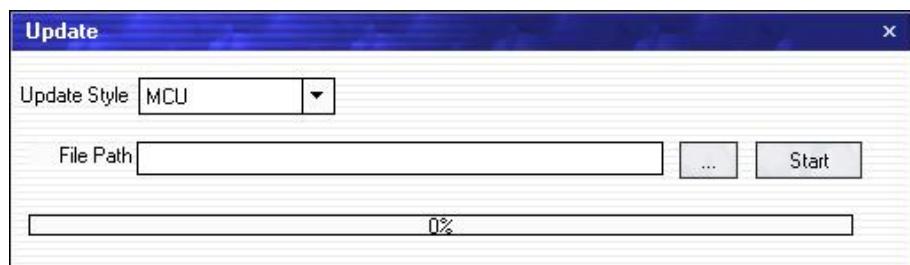


Control

Upgrade

This video processor provide equipment upgrade function.If user have new MCU need to renew,can click Upgrade,then will show as

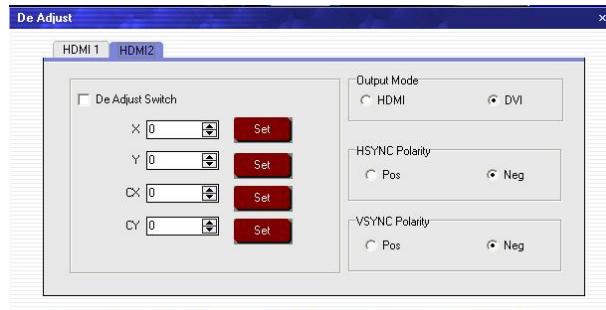
following,select to enter the path of storage for the MCU.and click to upgrade.



5. Communication Software Guideline

Run software

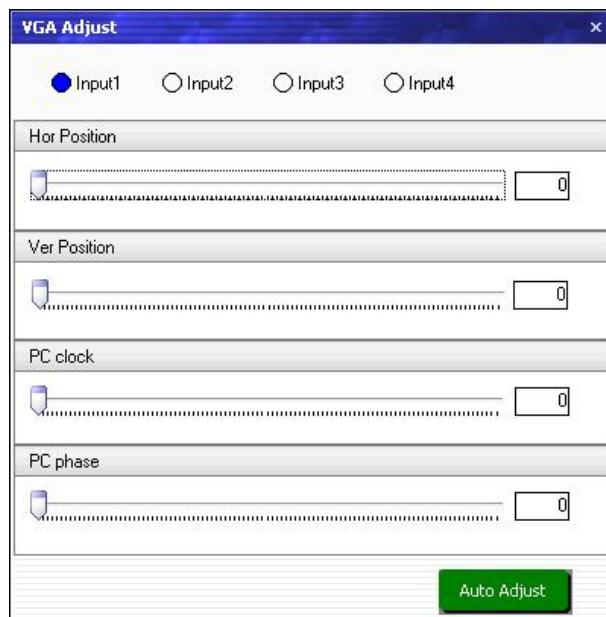
DVI DE Delay



Note

the same as OUT → Program/Preview → De
Setup → HDMI/DVI

VGA Input Adjust



When VGA input signal can't identify or after the bias image recognition. To realize the VGA input signal simple calibration. So that equipment can identify VGA signal.

Note

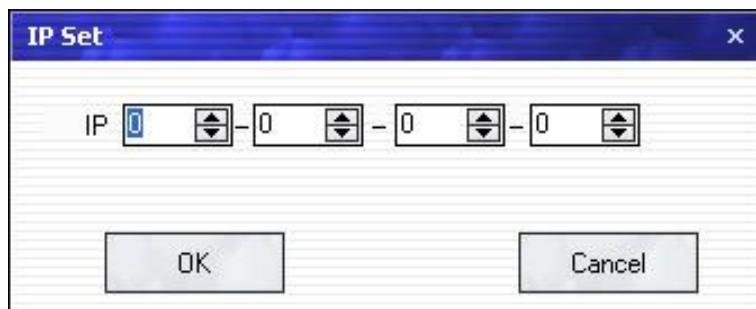
Suggest using automatic adjustment ,If cannot correction input. Please contact with our technical engineers.

5.Communication Software Guideline

Run software

IP setting

With this feature, the user himself can set the device's IP. The function is generally used when the user wants to use the same computer to do simultaneous manipulation or remote control ,if IP is changed through serial port, IP changes would take effect immediately ,if IP is changed through Ethernet port ,user should close the control software and reopen it use the new IP to do the communication



Factory reset

Click “factory setup”, previously saved user-mode will be cleared.

Note

the same as Reset.

Option

Language

The software support Chinese and English



5.Communication Software Guideline

Run software

Note

the same as Language.

Administration

Advance Setting



Note

Advance setting is for engineer specially, please contact with our customer service engineer to get the code if it is necessary ;

Help

Version notice

Display the software version and what is new

About

display the software version and company information

Information toolbar

the button line of the interface of control software shows the Software Version, Main Board Version, Firmware Version and SN



5. Communication Software Guideline

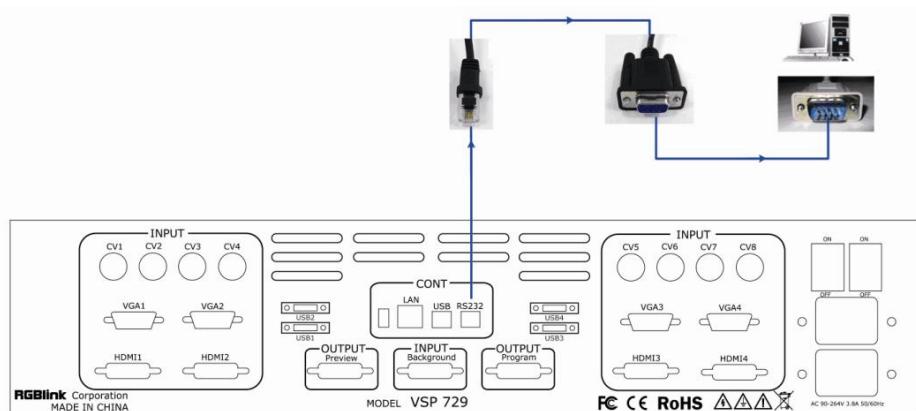
How to control processor through RS232?

How to control processor through RS232?

Firstly, install the control software in your PC;

Take out the RS 232 cable as following (RS-232, with 9-pin on one end,

RJ 11 on the other side.) Connect one side of the RJ11 download line to the RS232 on the video processor VSP729, and the other side to be connected to the serial port on the PC.

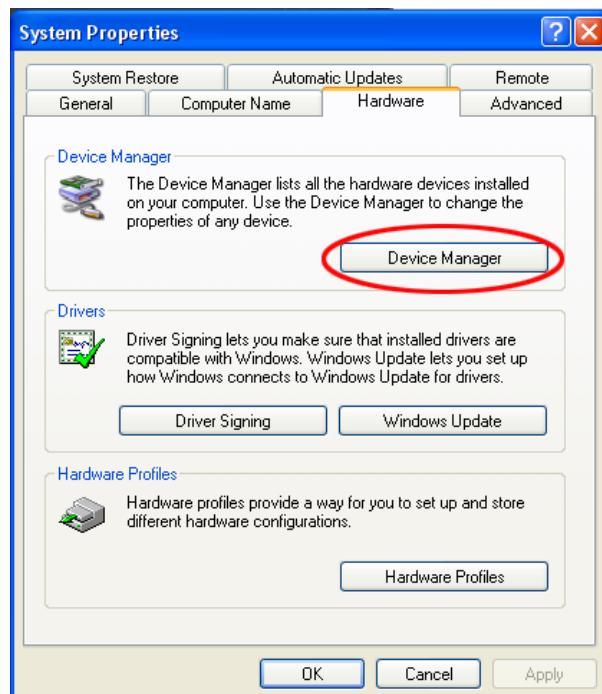


If there is no any Serial port on your PC, you will need another Serial to USB adapter. Connect one end of the RJ11 download line to the RS232 on the video processor. Connect the end of USB-side to the PC, Ensure the cable connection is good. Turn on the Video Processor VSP 729.

Right click the 【My Computer】 on the home screen of control PC. Enter 【Attribute】 , Find 【Hardware】 Option, as following.

5. Communication Software Guideline

How to control processor through RS232?



Click 【Device Manager】 "+" on the left, check the COM number, as following, **COM1 is offered**.

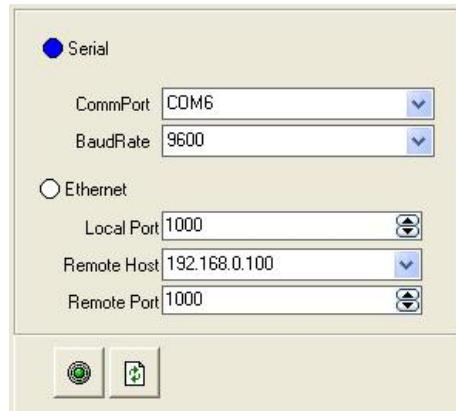


Remember the COM you are using and then run the control software, find

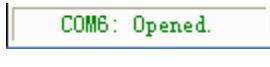
【Communication】 option. In default, first time user have to click  button, as following:

5. Communication Software Guideline

How to control processor through RS232?



Check and Press **【Serial】**, Serial Port , for example, is **COM6** which is checked from device manager. Set VSP 729 Boud Rate to be :115200, Click **【Confirm】** after setting.

Click  **【 open serial】**, check if **【COM】** icon on the bottom right corner, when there is the prompt green  showing on the software, it means the communication is ok , and you can use the software to control the device now.

Note

If power off during communication, should close  the port , by first, and plug in out of the USB  and do communication.

5. Communication Software Control Guide

How to control processor with console software by USB?

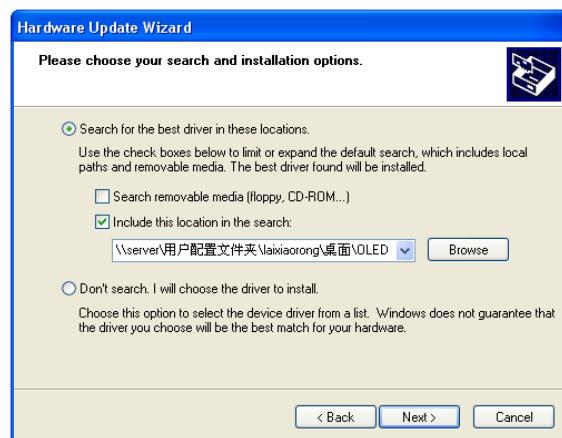
How to control processor with console software by USB?

Install the driver

Connect the USB cable to the PC and the video processor .turn on the VSP 729, for the first time to use USB, the PC will remind finding the new hardware and ask to install the driver for this new driver:



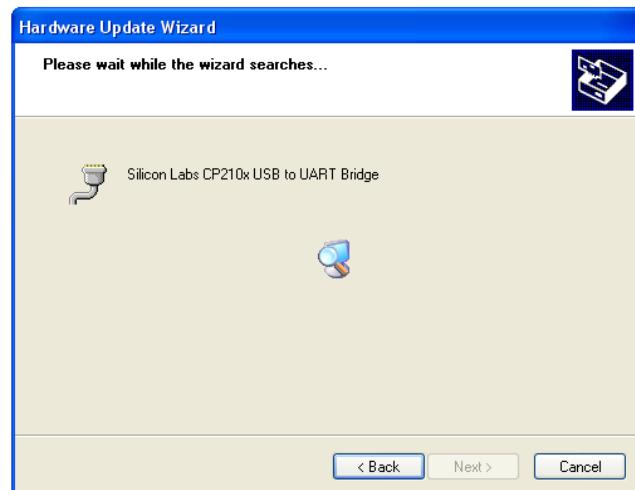
Install from the list or specified location, press “NEXT”:



Press “browser” to find the driver, and press “NEXT”:

5. Communication Software Control Guide

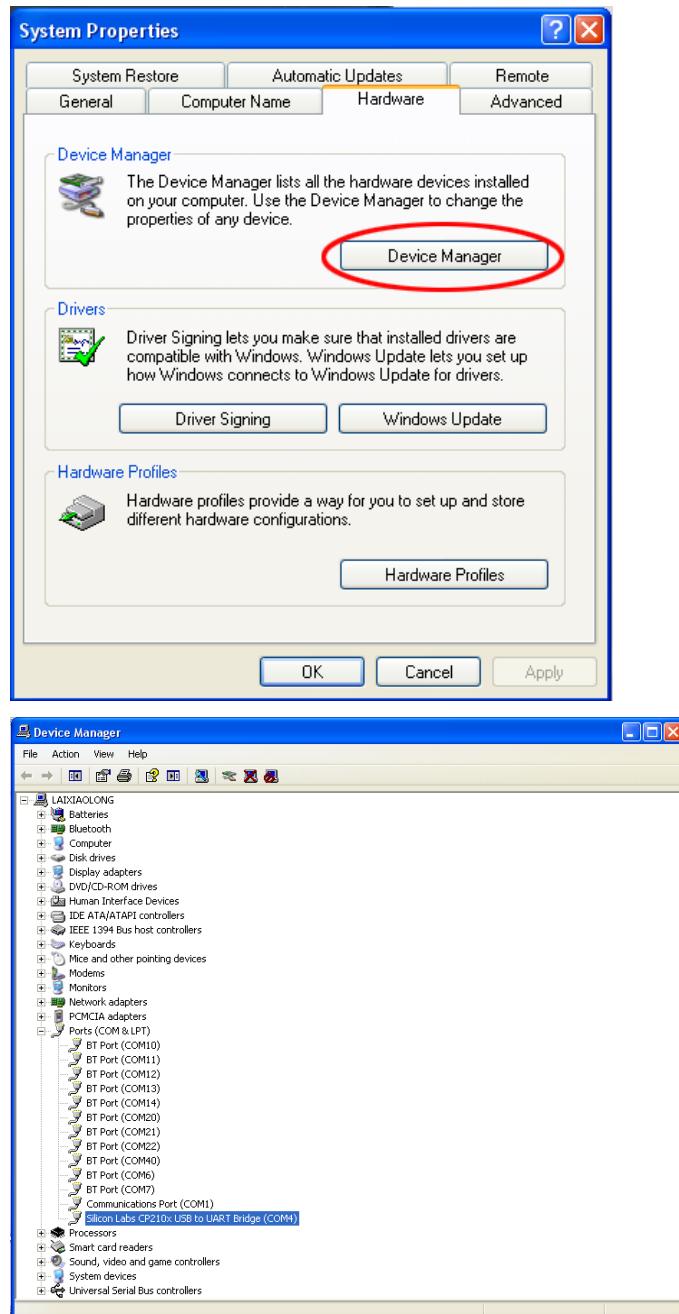
How to control processor with console software by USB?



When the installation finish, can go to check the installed COM port inside the device management, as following picture shows:

5. Communication Software Control Guide

How to control processor with console software by USB?

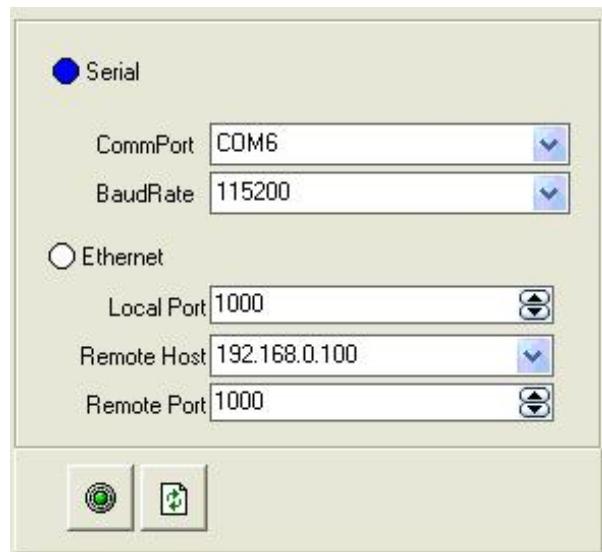


Install the console software, and run after install, shows the interface of the console as following:

Select the COM as installed just now, and set the VSP 729 Boud Rate to be: 115200.

5. Communication Software Control Guide

How to control processor with console software by USB?



Press to start communication, when there is green point in the right down corner showing on the software, it means the communication is ok, and you can use the software to control the device now; the software operation is the same as VSP 729.

6. System Setup and Operations

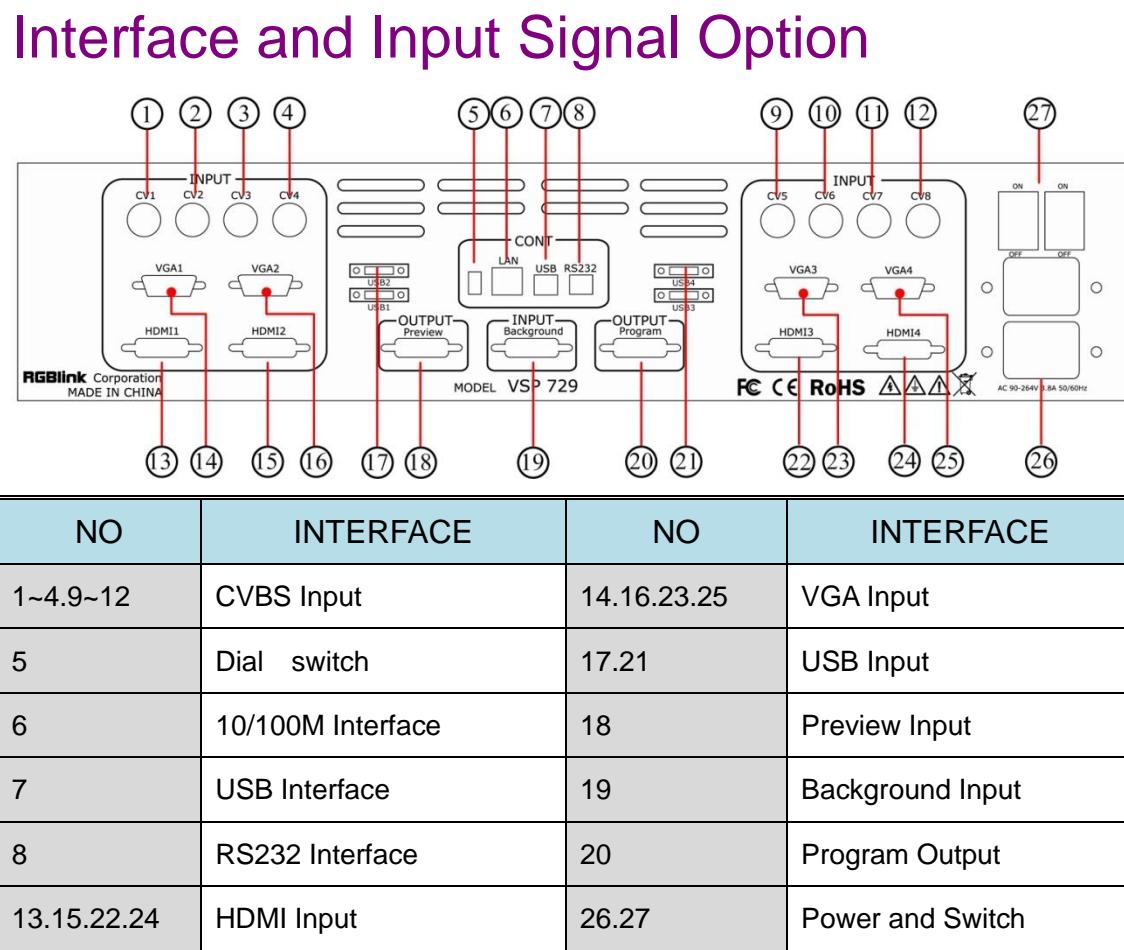
In This Chapter

This chapter provides comprehensive instructions for system setup and operations. The following topics are discussed:

- Interface and input signal choice
- Single image switching
- Background choice
- Multiview image setting
- Multiview image switching
- Multiview matrix function

6. System Setup and Operations

Interface and Input Signal Option



18. Is Preview output interface,preview signal that will be sended through display.Output signal:DVI video signal and VGA video signal,can switch on display with DVI or VGA interface to supervise signal picture.Output signal through DVI-I(Preview use standard DVI-I interface,Compatible with VGA output.Contact VGA output through terminal.); Support output resolution:VESA: 1024x768x60Hz;

20. Program is main image output,contact sending card,Support VESA: 800x600x60Hz, 1024x768x60Hz, 1280x768x60Hz, 1600x1200x60Hz, 1920x1080x60Hz;

Please click OUT to enter and select corresponding output through knob switch.And click NEXT to enter.

6. System Setup and Operations

Interface and Input Signal Option

In addition to CONT and the power interface, Other interface is video signal input interface. The interface including:HDMI、VGA、YPbPr、YCbCr、CV. Corresponding four signal source : HDMI1、VGA1、CV1、CV2i is channel 1; HDMI2、VGA2、CV3、CV4 is channel 2; DMI3、VGA3、CV5、CV6 is channel 3; DMI4、VGA4、CV7、CV8 is channel4;

The selection of signal format

If channel 2 need to select VGA input signal, select Preview 【2】 , and click 【PROG】 to enter signal format, Running the knob switch to select corresponding input format, select VGA, then click NEXT.

6. System Setup and Operations

Single Image Switching

Single Image Switching

If it is just simple seamless effects switch between stage pictures, the settings above are basic completed, just save the existing information and master switch skills in practice, as follows:

Button Save User Mode Operations

Press CUSTOM and 【SAVE】 , Six light below SAVE CONFIG lights on is SAVE1~6, Press 【1】 ,it means the current parameters is saved to mode1.When restart the mode1 is defaulted.

Single Image Switch

VSP729 can arbitrary seamless effect switch between 4 channel,Just choose the channel need to switch to screen firstly.If the light 3 below Program lights on.It means the screen output the channel3 signal. If need to switch channel2 signal to the screen,Press 【2】 below Preview,And seamless effect switch or Press 【TAKE】

【TAKE】 default for 3 seconds fade-in fade-out, If need to switch the time of fade-in fade-out,please Press 【FADE】 to change the time through the knob switch, and Press NEXT to affirm.Press TAKE again to recover.If need to switch other channel signal please Press the corresponding reface 【1】、【2】、【3】、【4】 below Preview and Press 【CUT】 or 【TAKE】 to out.

Size and Position setting

For different channels the size and position is different, VSP729 can realize the different channel image size and position alone to adjust arbitrarily .Press the corresponding signal below Preview such as select

6. System Setup and Operations

Single Image Switching

【2】 , then Press 【SCALE】 to enter Scaler, There are four parameter: Width, Height, Pos X, Pos Y, Please according to the pictures showed demand to select corresponding parameter and amend parameter. Then Press 【NEXT】 to affirm. It can realize set different picture size and position at easy through this operation.

6. System Setup and Operations

Background choice

Background choice

Press 【5】 below Program (or Preview) , Knob the switch to enter blank or vino.User can choose according to demand.

6. System Setup and Operations

Multiview image setting

Multiview image setting

VSP729 at up to four channel will signal any position and any size output to the screen, And through the matrix function to set some of the channel signal set to the same source. So the screen can show the four exactly same picture .

Size and position setting

The 【I】 below EFFECTS is full screen single picture; 【II】 is half and half PBP. 【III】 is three thirds picture; 【IV】 is 2*2 four picture. According to the demand to choose the corresponding number picture. The default setting is generally can't meet the actual project shows demand. Such as three picture, general on both sides of the picture is small than the middle's. So need to set the each picture size and position.

Select corresponding signal through corresponding reface below Preview. Such as 2, then Press SCALE to enter SCALE. There are four parameters: Width, Height, Pos X, Pos Y, Please according to the pictures showed demand. Running the knob switch to choose corresponding and amend parameters, then Press NEXT to affirm.

6. System Setup and Operations

Multiview image switching

Multiview image switching

VSP729 can realize seamless switching between multiview and single picture. Such as set multiview is double picture. it means use channel 1 and channel 2. Now just can seamless switching with channel and channel. If switching to channel is invalid.

Similarly, three picture just seamless switching with channel 4. That is the default output in three pictures, Press 4 below Preview, to realize switching through CUT or TAKE.

VSP729 by calling the different user mode to realize multiview and single picture switching: Save the setted corresponding user mode through SAVE . the VSP729 calls the different user mode to realize multiview and single picture switching: Save the corresponding set scene through SAVE1 or SAVE 2-SAVE 6, Press SAVE 1 or SAVE 2-SAVE 6 directly to realize switching.

Four picture used all the layer, so can't switch with single picture or multiview. Use the call user mode when need to switch.

6. System Setup and Operations

Multiview Matrix Function

Multiview Matrix Function

If the above operation can't meet the user's pictures showed demand.Such as want the both side picture of screen be the same size when use three picture.Or want seamless switch between three picture and the main picture of three picture.Now need to use VSP729 Matrix.

VSP729 set up a matrix function,It means any input channel can give to any layer.So can be showed four same signal source on the screen through the function.

If need to the both side picture of three picture show the channel 1 signal,and realize seamless switch between three picture and the main picture of three picture.Press MENU firstly, and running the knob switch to select Matrix,then Press NEXT to enter ,and running the knob to select the corresponding layer.Such as lay 3.Press NEXT to enter ,running the knob to select the corresponding input channel ,Such as when need to show channel 1 signal,please select channel 1,Press NEXT to affirm.In the same way layer 4 select channel 2.In the same way,layer 4 select input channel 2,after setting Press CUT or TAKE to switch.If still need to use the setting the next time,just need to SAVE 1 to save the above setting.So the setting can be used again the next time.

7. Common Questions and Solution

In This Chapter

This chapter provides the common questions and solution for the video processor. The following topics are provided:

- No Output in Large Screen
- Large Screen Output Flash Point
- Large Screen only Display Part of the Image
- No Display in the Second Half Part of Large Screen
- Large Screen Shaking
- Left of the Screen Appears Two Black Sides
- All Key Lights Light Simultaneously

7. Common Questions and Solution

No Output in Large Screen

Confirm if there are any input singles

Press【MENU】Button to find "INPUT" and knob into the "INPUT RES INFO" to see whether the input signal is normal, suggested the "NO INPUT" signal does not come in, check the front-end signal lines, and please note to do dual display or extended in computer ; you can enter other format signals to view in the same operating.

Confirm if single output

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If not display properly, please check whether there is input signal, or if input wire interface is taken tight, output wire interface is picked up tightly. If display normally, check if sending card is normally working or need to replace sending card test.

Large Screen Output Flash Point

Confirm if monitor output is normal

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If display normally shows and no flash point, please check whether DVI outlets put tight or replace to DVI line of sending card. If display flash point, please judge if input signal, wire, and interface is normal.

7. Common Questions and Solution

Large Screen only Display Part of the Image

Signal need to scale

Press **【SCALE】** button in the processor and knob to adjust the actual screen size of the screen, combined with button **【POSITION】**, including the "width", "height" and "starting position", remember to touch the knob to confirm.

No Display in the Second Half Part of Large Screen

Resolution is inadequate

Please make sure the points of the screen width and height, choose the resolution to be bigger than screen width by button **【MENU】** under OUTPUT RES, and touch knob to confirm.

Sending card can't take lower part

TS 802 can control the max horizontal resolution 2048, and vertical resolution 640. Each CAT5 output is 320 pixels.

Large Screen Shaking

Sending card input recognition is not correct

It usually occurs in DBStar sending card. Use it's normal before, but screen

7. Common Questions and Solution

sway after change output resolution. It will be normal if re-open the sending card.

Left of the Screen Appears Two Black Sides

Adjust DE dethroughtion

This phenomenon needs to adjust the DVI output and DE migration of the processor, through the **【MENU】** to find "OUTPUT" and find the corresponding output name, such as "DVI1 OUT ADJUST", and find "DVI1 DE" again, make an adjustment for corresponding horizontal and vertical DE, please remember to save to the corresponding channel after setting up, save to SAVE1 by default.

All Key Lights Light Simultaneously

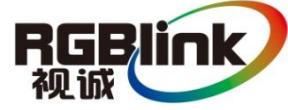
Check if dial switches are normal

Shut the power, check if two red dial switches near CV are upward. Reboot if they face down, and reboot. The function of the red dial switched is mainly upgrade.

A.Specification

CVBS Input	
Number of Inputs	8
Connector	Standard BNC Socket
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
Multiplex	480i,576i
YPbPr input	
Number of Inputs	4
Connector	Standard DB15 Socket
Supported Standard	Analog HD input
Signal Level	Y:1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm Pb/Pr:0.7Vpp±3dB 75 ohm
Multiplex	480i,576i,480p,576p,720p50,720p60,1080i50,1080p50 1080i60,1080p60
VGA Input	
Number of Inputs	4
Connector	Standard DB15 Socket
Supported Standard	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level: 300mV Sync-tip: 0V
Supported Resolution	VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60, 1440*900@60,1600*1200@60)
DVI Input	
Number of Inputs	4
Connector	Standard DVI-I socket
Supported Resolution	SMPTE: 625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA: 800×600×60Hz,1024×768×60Hz,1280×768×60Hz, 1280×1024×60Hz,1600×1200×60Hz,1920×1080×60Hz
Signal Level	TMDS pwL,single pixel input,165MHz bandwidth
Format Standard	HDMI 1.3
Background	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported Resolution	VESA: 1024×768×60Hz, 1280×768×60Hz, 1600×1200×60Hz, 1920×1080×60Hz

Signal Level	TMDS pwI,single pixel input,165MHz bandwidth
Format Standard	HDMI 1.0
Preview DVI output	
Number of Outputs	1
Standard	Standard DVI-I socket
Signal Level	TMDS pwI,165MHz bandwidth
Preview VGA Output	
Number of Outputs	1
Connector	Standard DB15 Socket
Supported Resolution	VESA: 1024x768x60Hz
Signal Level	R、G、B、Hsync、Vsync:0 to 1Vpp±3dB (0.7V Video+0.3V Sync) 75 ohm black level: 300mV Sync-tip: 0V
Program DVI Output	
Number of Outputs	1
Connector	Standard DVI-I Socket
Supported Resolution	VESA: 1024x768x60Hz, 1280x768x60Hz, 1600x1200x60Hz, 1920x1080x60Hz
Signal Level	TMDS pwI,165MHz bandwidth
Function	
Input channel configuration	Support each input channel signal programming configuration
PIP	Support PIP、PBP for any two inputs
Transition effects	Fade in and fade out switching between any two inputs
Extras	
Communication	RS232 USB TCP/IP
Power Supply	85-264V 2.1A IEC-3
Working Environment	0°C~45°C
Stored Environment	10% to 90%
Product Warranty	1 year



B. Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by a full 3-year parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

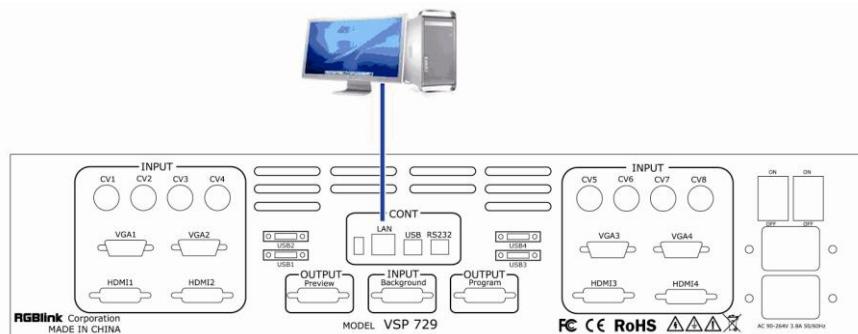
The customer shall pay shipping charges when unit is returned for repair.

Headquarter: S603~604 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Fujian Province, P.R.

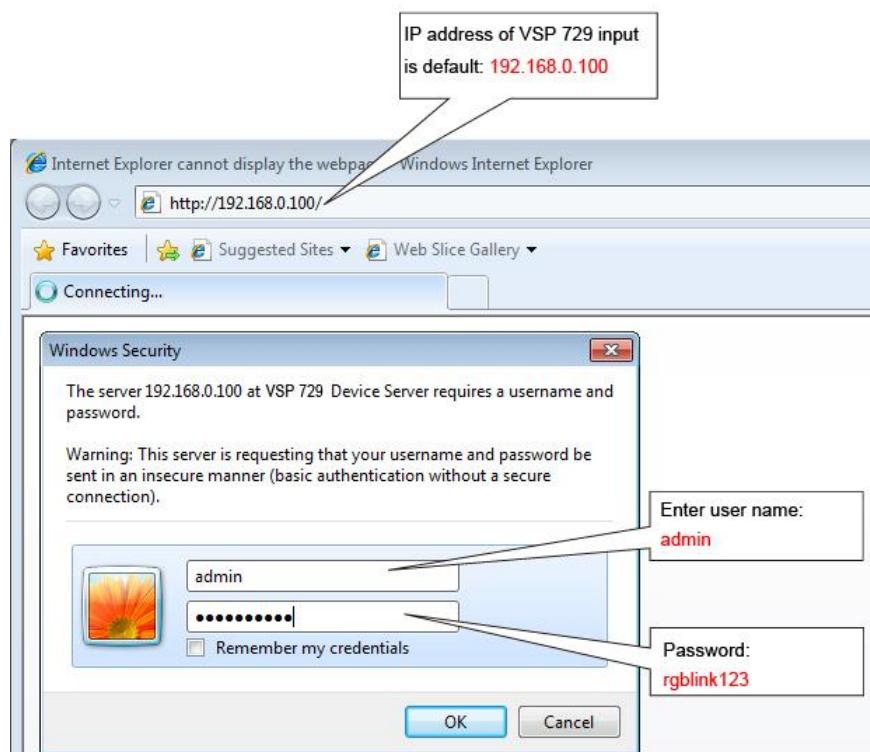
C. Upgrading Software

VSP 729 upgrade firmware

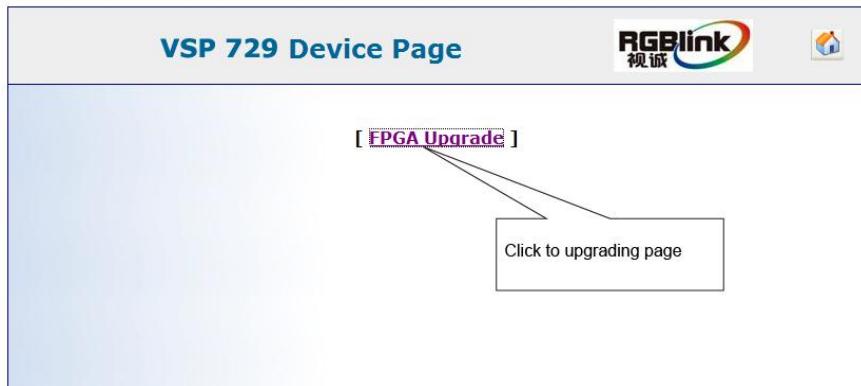
1. Firstly , install the control software in your PC ;



2. Input VSP 729 network address in address toolbar: 192.168.0.100, enter the user name admin and password rgblink123 in the dialog box.



- 3.Click FPGA Upgrade to enter the upgrade page;



4. Click browse to select document, the name of document must be Preamp_FPGA.bin or Bakamp_FPGA.bin ;



5. Click 【Send】 to send , wait for upgrade ;



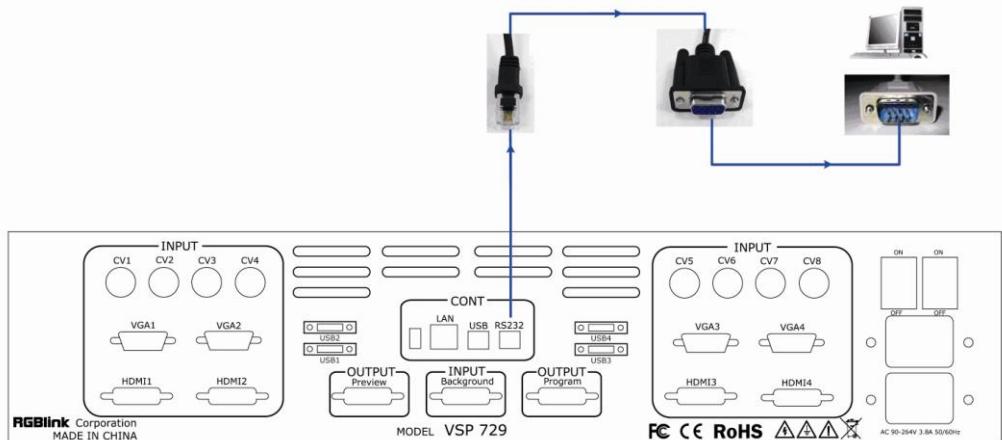
6. Upgrade Bakamp FPGA Success.

Download the IP software

Turn off the power, take the two coding switch to “ON” state as below:



Connect one side of the RJ11 download line to the RS232 on the video processor, and the other side being connected to the serial port on the PC.

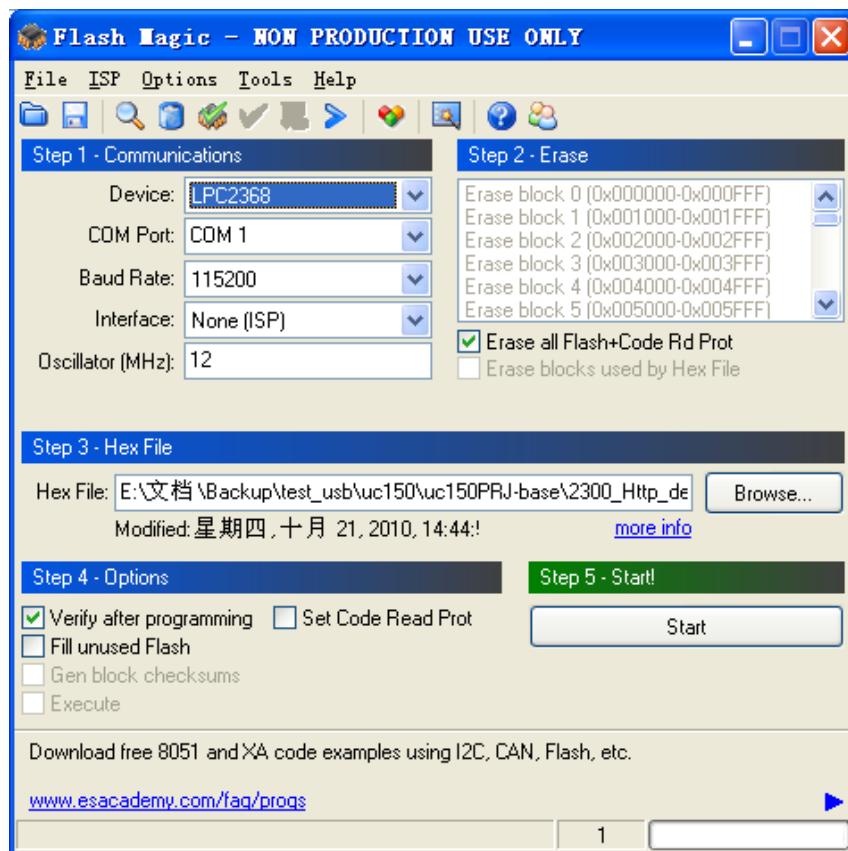


Double click  to run flash magic, setting as below:

Firstly, users can choose the right serial port, set the Boud rate to 9600, choose LPC2368, and to load the aim document (hex file) for IP board upgrading; Secondly, confirm the two option box by check.



Finally, click the “start” button.



After download, exit the program, turn off the power, tack the two coding switch back, as below restart the equipment power, check if the equipment work normally.



Note

Flash Magic download website:
<http://www.flashmagictool.com/download.html&d=FlashMagic.exe>